

STATE OF KANSAS

BEFORE THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

In the Matter of the
Proposed Adoption of Permanent Kansas Administrative Regulations
Proposed new regulation K.A.R. 28-19-200a
Proposed amendment to K.A.R. 28-19-350

REPORT OF THE HEARING OFFICER

This matter comes before David B. Stutt, hearing officer appointed by the Secretary of the Kansas Department of Health and Environment (KDHE) to consider the comments of the public regarding the adoption of proposed permanent administrative regulations.

INTRODUCTION

Pursuant to K.S.A. 2009 Supp. 77-421, as amended by L. 2010, ch. 95, sec. 9, notice of the public comment period and public hearing was published in the *Kansas Register* on August 26, 2010. A copy of the public notice is included in this report as Attachment 1. The public hearing was conducted at Topeka, KS on October 26, 2010 in Room 530 of the Curtis State Office Building. These regulations are promulgated under the authority of K.S.A. 65-3001 *et seq.* The purpose of these regulations is to implement the federal Greenhouse Gas (GHG) Tailoring Rule. Upon adoption of the proposed regulations, KDHE will submit a revised State Implementation Plan to the U.S. EPA for approval.

Attachment 2 is a sign-in sheet listing persons present at the public hearing.

SUMMARY OF THE RECORD

The hearing officer opened the public hearing at 10:04 AM with introductory remarks and called upon Bureau of Air staff member, Mr. Miles Stotts, to briefly review and discuss the proposed regulations (Attachment 3). Following these remarks the hearing officer invited public comment. Comment was received from one person representing Empire District Electric Company during the hearing. This person spoke and submitted written comments in support of the proposed regulatory actions believing this was the most efficient and economical implementation, although the speaker was not in support of EPA's GHG regulation.

During the public comment period, KDHE received an electronic mail comment from the Columbian Chemicals Company in opposition to GHG regulation. Another electronic mail comment was received from the Kansas Association of Counties requesting proper notification of any expiring permits. Raney Gilliland, Assistant Director, Kansas Legislative Research Department, submitted a comment letter on behalf of the Joint Committee on Administrative Rules and Regulations. Empire District Electric Company submitted a written comment letter. No other comments were received during the public comment period. All public comments are included in Attachment 4.

POST-HEARING ACTIVITIES

Following the close of the public comment period, all comments received were fully considered. The agency's response to the public comments is detailed in the agency's responsiveness summary, which is included in this report as Attachment 5.

RECOMMENDATIONS

On the basis of the administrative record developed in this matter, the hearing officer finds and concludes that agency staff has met the public participation requirements for adopting the proposed regulations.

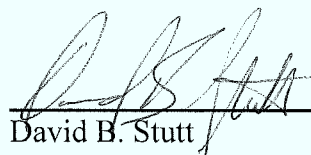
FINDINGS OF FACT

1. K.S.A. 65-3001 *et seq.* authorizes the Secretary of the Kansas Department of Health and Environment to adopt and amend administrative rules and regulations related to the Kansas air quality program.
2. Pursuant to this authority, the Secretary promulgated the GHG Tailoring Rule regulations at issue, made a statement of the environmental benefit and economic impact of the proposed regulations and published notice of the public comment period and hearing in the *Kansas Register* on August 26, 2010.
3. The public comment period that was established for receiving comments on the adoption of the proposed regulations was concluded and the public hearing was held on October 26, 2010.
4. Comments related to the adoption of the proposed regulations were received and all comments have been fully considered. Changes in the proposed regulations were not needed to address these comments.

CONCLUSIONS

The hearing officer concludes that the Secretary of the Kansas Department of Health and Environment has the authority to promulgate the proposed regulation under K.S.A. 65-3001 *et seq.* and has met the requirements established under K.S.A. 2009 Supp. 77-415 *et seq.*, as amended by L. 2010, ch. 95, for adopting regulations and filing these regulations with the Kansas Secretary of State.

Dated this 2nd day of November, 2010.



David B. Stutt
Hearing Officer

Attachment 1

State of Kansas

Department of Transportation

Notice to Contractors

Sealed proposals for the construction of road and bridge work in the following Kansas counties will be received at the Bureau of Construction and Maintenance, KDOT, Topeka, or at the Eisenhower State Office Building, 700 S.W. Harrison, fourth floor west wing, Topeka, until 1 p.m. September 15 and then publicly opened:

District One – Northeast

Douglas—10-23 KA-1488-01 – Slide repair on K-10 in Douglas County, slide repair. (State Funds)

Johnson—10-46 N-0524-01 – K-10 Intelligent Transportation System and Traveler Information Expansion, 4 miles. (Federal Funds)

Johnson—69-46 N-0525-01 – U.S. 69 Intelligent Transportation System and Traveler Information Expansion, 10.3 miles. (Federal Funds)

District Two – Northcentral

Ellsworth—27 K-2494-06 – Kanopolis State Park in Ellsworth County, state park road improvement. (State Funds)

District Three – Northwest

Osborne—181-71 KA-1979-01 – K-181 in Osborne County, seal, 13.7 miles. (State Funds)

District Four – Southeast

Allen—1 U-2284-01 – Bridge Street and Central Street in Humboldt, grading and surfacing, 0.5 mile. (State Funds)

Anderson—169-2 KA-0706-02 – U.S. 169 bridge just west of Welda, seeding and sodding. (Federal Funds)

District Five – Southcentral

Sedgwick—135-87 K-7332-03 – I-135/U.S. 54 Interchange and southbound I-135 from Lincoln to Harris Street, seeding and sodding. (Federal Funds)

Proposals will be issued upon request to all prospective bidders who have been prequalified by the Kansas Department of Transportation on the basis of financial condition, available construction equipment and experience. Also, a statement of unearned contracts (Form No. 284) must be filed. There will be no discrimination against anyone because of race, age, religion, color, sex, handicap or national origin in the award of contracts.

Each bidder shall file a sworn statement executed by or on behalf of the person, firm, association or corporation submitting the bid, certifying that such person, firm, association or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid.

This sworn statement shall be in the form of an affidavit executed and sworn to by the bidder before a person who is authorized by the laws of the state to administer oaths. The required form of affidavit will be provided by the state to each prospective bidder. Failure to submit the sworn statement as part of the bid approval package will

make the bid nonresponsive and not eligible for award consideration.

Plans and specifications for the projects may be examined at the office of the respective county clerk or at the KDOT district office responsible for the work.

Deb Miller

Secretary of Transportation

Doc. No. 038644

State of Kansas

Department of Health
and EnvironmentNotice of Hearing on Proposed
Administrative Regulations

The Kansas Department of Health and Environment, Division of Environment, Bureau of Air, will conduct a public hearing at 10 a.m. Tuesday, October 26, in Room 530 of the Curtis State Office Building, 1000 S.W. Jackson, Topeka, to consider the adoption of proposed new air quality regulation K.A.R. 28-19-200a, regarding general provisions and definitions to implement the federal greenhouse gas (GHG) tailoring rule, and proposed amended air quality regulation K.A.R. 28-19-350, regarding prevention of significant deterioration (PSD) of air quality. A summary of the proposed regulations and the estimated economic impact follows:

Summary of Regulations:

The proposed new regulation **K.A.R. 28-19-200a** and the proposed amendment to **K.A.R. 28-19-350** will align Kansas air quality regulations with the revised federal regulations for the Title V and PSD programs, respectively, to implement the federal Title V GHG Tailoring Rule. KDHE is proposing these regulatory actions to expedite the permitting and potential construction of facilities in Kansas. Specifically, the proposed regulatory actions incorporate the modified definition of "major source" and the new definition for "subject to regulation" in K.A.R. 28-19-200a to update the Title V program and update the adoption by reference of 40 C.F.R. 52.21 in K.A.R. 28-19-350 to align the state PSD program with the federal program.

These proposed regulatory actions are needed for the state of Kansas to retain the primary authority to implement the PSD and Title V programs and retain the ability to issue permits for both programs.

Economic Impact:

The United States Environmental Protection Agency (EPA) Regulatory Impact Analysis examines the benefits, costs, and economic impacts of the PSD and Title V GHG Tailoring Rule for affected entities and society. The rule may be viewed as providing some regulatory relief rather than requirements for smaller GHG sources for a period of at least the phase-in period. For larger sources of GHG, there are no direct economic burdens or costs as a result of this rule because requirements to obtain a Title V operating permit or to adhere to PSD requirements of the Clean Air Act (CAA) are already mandated by the federal CAA and by existing rules and are not imposed as a result of this rulemaking.

(continued)

Upon adoption of the proposed new regulation and proposed amended regulation, KDHE will submit a revised State Implementation Plan to the EPA for approval.

The time period between the publication of this notice and the scheduled hearing constitutes a 60-day public comment period for the purpose of receiving written public comments on the proposed regulatory action. All interested parties may submit written comments prior to 5 p.m. on the day of the hearing to Miles Stotts, Kansas Department of Health and Environment, Bureau of Air, 1000 S.W. Jackson, Suite 310, Topeka, 66612, by fax to (785) 296-7455, or by e-mail to mstotts@kdheks.gov. All interested parties will be given a reasonable opportunity to present their views orally on the proposed regulatory action during the hearing. In order to give all parties an opportunity to present their views, it may be necessary to require each participant to limit any oral presentation to five minutes.

Copies of the proposed regulations and complete economic impact and environmental benefit statement may be obtained from the KDHE Bureau of Air by contacting Miles Stotts at (785) 296-1615 or mstotts@kdheks.gov. Copies also may be viewed at the following locations:

- Department of Air Quality, Unified Government of Wyandotte County - Kansas City, Kansas Health Department, 619 Ann Ave., Kansas City, Kansas
- Johnson County Environmental Department, 11811 S. Sunset, Suite 2700, Olathe
- Curtis State Office Building, 1000 S.W. Jackson, Suite 310, Topeka
- KDHE Northeast District Office, 800 W. 24th St., Lawrence
- KDHE Northwest District Office, 2301 E. 13th St., Hays
- KDHE North Central District Office, 2501 Market Place, Suite D, Salina
- KDHE South Central District Office, 130 S. Market, Suite 6050, Wichita
- KDHE Southeast District Office, 1500 W. 7th St., Chanute
- KDHE Southwest District Office, 302 W. McArtor Road, Dodge City
- Wichita-Sedgwick County Dept. of Community Health, 1900 E. 9th St., Wichita

The material also is available on the Bureau of Air's Web site at http://www.kdheks.gov/bar/public_notice.html. Questions pertaining to these proposed regulations should be directed to Miles Stotts.

Any individual with a disability may request accommodation in order to participate in the public hearing and may request the proposed regulations and the economic impact and environmental benefit statement in an accessible format. Requests for accommodation should be made at least five working days in advance of the hearing by contacting Miles Stotts.

Roderick L. Bremby
Secretary of Health
and Environment

Doc. No. 038647

State of Kansas

Department of Health and Environment

Notice Concerning Kansas/Federal Water Pollution Control Permits and Applications

In accordance with Kansas Administrative Regulations 28-16-57 through 63, 28-18-1 through 15, 28-18a-1 through 32, 28-16-150 through 154, 28-46-7, and the authority vested with the state by the administrator of the U.S. Environmental Protection Agency, various draft water pollution control documents (permits, notices to revoke and reissue, notices to terminate) have been prepared and/or permit applications have been received for discharges to waters of the United States and the state of Kansas for the class of discharges described below.

The proposed actions concerning the draft documents are based on staff review, applying the appropriate standards, regulations and effluent limitations of the state of Kansas and the Environmental Protection Agency. The final action will result in a Federal National Pollutant Discharge Elimination System Authorization and/or a Kansas Water Pollution Control permit being issued, subject to certain conditions, revocation and reissuance of the designated permit or termination of the designated permit.

Public Notice No. KS-AG-10-136/140 Pending Permits for Confined Feeding Facilities

Name and Address of Applicant	Legal Description	Receiving Water
Syracuse Dairy Algene Jay Houtsma 751 S.E. County Road 36 Syracuse, KS 67878	E/2 of Section 36, T26S, R41W & NW/4 of Section 31, T26S, R40W, Hamilton County	Cimarron River Basin
Kansas Permit No. A-CIHM-D001 Federal Permit No. KS0090638		
This is a permit modification and reissuance for a confined animal feeding facility for a total maximum of 12,000 head (15,600 animal units) of dairy cattle; consisting of 9,000 head (12,600 animal units) of mature dairy cows, and 3,000 head (3,000 animal units) of dairy heifers weighing more than 700 pounds. There is no change in the permitted animal units from the previous permit. Permit modifications include the construction of two earthen retention structures. This facility has an approved Nutrient Management Plan on file.		

Name and Address of Applicant	Legal Description	Receiving Water
Tuls Dairy Farms, LLC Pete Tuls 8641 Road C Liberal, KS 67901	W/2 of Section 21, T33S, R34W, Seward County	Cimarron River Basin
Kansas Permit No. A-CISW-D001 Federal Permit No. KS0090620		
This is a permit modification and reissuance for a confined animal feeding facility for a maximum total of 6,472.5 animal units of dairy cattle; consisting of 3,150 head (4,410 animal units) of mature dairy cows, 875 head (875 animal units) of dairy heifers weighing more than 700 pounds and 2,375 head (1,187.5 animal units) of dairy calves weighing less than 700 pounds. There is no change in the permitted animal units from the previous permit. Permit modifications include the construction of an additional earthen sludge drying bed. This facility has an approved Nutrient Management Plan on file.		

Attachment 2

SIGN-IN SHEET

Public Hearing - October 26, 2010

10:00 A.M., Room 530, Curtis State Office Building, Topeka, Kansas

Proposed New Regulation	Name of Regulation
K.A.R. 28-19-200a	General provisions; definitions to implement the federal greenhouse gas tailoring rule.

Proposed Regulation to Amend	Name of Regulation
K.A.R. 28-19-350	Prevention of significant deterioration (PSD) of air quality.

Name (please print)	Representing	Address	Verbal and/or Written Testimony?
1. Keith Weber	KDHE		No
2. George Thullesen	ENEC	404 S Joplin Ave Joplin, MO	Yes
3. Susan Vogel	KDHE		—
4. Shari Albrecht	KDHE		No
5. Miles Stotts	"		Yes
6. BILL EASTMAN	WESTAR	818 S. KANSAS TOPEKA	No
7. Martin Muesoth	KDHE		No
8. Rock Brunette	KDHE		No
9. Tom [Signature]	[Signature]		No
10. R. Boger [Signature]	' '		No
11. David Stett	Hearing Officer		No
12.			
13.			
14.			

Attachment 3

Testimony for Public Hearing - October 26, 2010
Miles Stotts, Bureau of Air, Kansas Department of Health and Environment
Proposed New K.A.R. 28-19-200a
And
Proposed Revision to K.A.R. 28-19-350

Good morning, Mister Stutt, fellow KHDE staff and interested citizens. I am Miles Stotts with the Bureau of Air at KDHE. The proposed regulations presented today address the US EPA's Tailoring Rule for Greenhouses Gases (GHG). The Bureau is proposing changes to the Kansas air quality regulations by creating one new regulation and amending one existing regulation. The proposed new regulation, K.A.R. 28-19-200a, along with the proposed amendment to K.A.R. 28-19-350, will align the Kansas Air Quality Regulations with the revised federal regulations for the Title V and Prevention of Significant Deterioration (PSD) programs to implement the federal greenhouse gas Tailoring Rule. KDHE is proposing these regulatory actions to expedite the permitting and potential construction of facilities in Kansas.

There were several EPA actions leading to the proposal of the Tailoring Rule in response to the U.S. Supreme Court decision in *Massachusetts v. EPA*. The EPA Administrator published findings on December 15, 2009, that six GHGs found in the atmosphere endanger public health and welfare and their emission from motor vehicles cause or contribute to greenhouse gas pollution. On April 2, 2010, EPA published its interpretation of a 2008 guidance document

(known as the Johnson memo) determining whether a pollutant is “subject to regulation” and thereby covered by the federal PSD permit program. The agency established that Clean Air Act (CAA) permitting requirements apply to a newly regulated pollutant at the time a regulatory requirement to control emissions of that pollutant “takes effect”. On May 7, 2010, EPA and the federal Department of Transportation jointly published the final light duty vehicle rule making 2012 model year vehicles subject to greenhouse gas regulation beginning January 2, 2011. These three actions led to the publication of the final Tailoring Rule on June 3, 2010, amending Title V and PSD regulations.

The federal rule “tailors” the existing CAA emissions thresholds of 100 and 250 tons per year (tpy) for criteria pollutants (particulate matter, sulfur dioxide, nitrogen dioxide, etc.). While these thresholds are appropriate for criteria pollutants, they are not feasible for GHGs because GHGs are emitted in much higher amounts. Without the Tailoring Rule, the lower emissions thresholds would take effect automatically for GHGs on January 2, 2011. PSD and Title V requirements at these thresholds would lead to dramatic increases in the number of required permits nationwide.

Under the Tailoring Rule, EPA will phase in the permitting requirements for GHGs in two initial steps.

Step 1. (January 2, 2011 to June 30, 2011)

□ For PSD permits, Step 1 only applies to sources already subject to PSD limits for their non-GHG emissions. These sources will

need to address their GHG emissions if their modification or construction will result in a GHG emissions increase of 75,000 tpy CO₂e or more. These sources would need to determine the Best Available Control Technology (BACT) for their GHG emissions. It is important to note that in Step 1, no sources will be required to obtain a PSD permit based solely on their GHG emissions.

- For Title V permits, Step 1 only applies to sources already subject to Title V requirements for their non-GHG emissions. These sources will need to address GHG pollutants only if a new, revised, or renewal of Title V permit is required due to new construction, expansion or expiration of the existing Title V permit.

Step 2. (July 1, 2011 to June 30, 2013)

- For PSD permits during Step 2, new construction projects will be subject to PSD permitting if they have the potential to emit 100,000 tpy CO₂e or more. Modifications or operational changes at existing facilities will require a PSD permit if the GHG emissions increase 75,000 tpy CO₂e or more. Based on PSD permits issued from January 1, 2009 to present, an estimated 3 sources could be subject to these requirements.

- For Title V operating permits, Step 2 will require sources that equal or exceed 100,000 tpy CO₂e to obtain a title V permit if they do not already have one. Based on a 2007 voluntary GHG emissions inventory, there are approximately 30 existing title V sources in Kansas that would be affected by the 100,000 tpy title V

threshold. This will include some landfills, ethanol plants, and possibly natural gas compressors and small electricity generating units.

□ There are 12 ethanol plants in Kansas that currently are not regulated under the title V program could trigger the 100,000 tpy threshold and be subject to the rule. In addition, there are 23 active sub-title D and 2-6 closed sub-title D municipal solid waste landfills in Kansas which could potentially be subject to this rule. These estimates exclude all exempt small arid landfills.

On September 2, 2010, EPA published two new proposed rules: one proposing to find that 13 states that have EPA-approved state implementation plans (SIPs) are substantially inadequate to meet PSD requirements for GHG-emitting stationary sources, and one rule proposing a federal implementation plan (FIP) for any state unable to revise its SIP in a timely manner. EPA identified Kansas as one of the 13 states with a substantially inadequate State Implementation Plan. KDHE proposes these changes to retain primary responsibility for issuing Title V and PSD permits subject to emission limits and other control measures and to avoid or minimize a construction ban from January 2, 2011, until such time as EPA would approve a SIP revision or implement a Federal Implementation Plan (FIP) for Kansas.

K.A.R. 28-19-200a: Definitions to Implement the Federal Greenhouse Gas Tailoring Rule

The Bureau is proposing new regulation K.A.R. 28-19-200a to add definitions needed to implement the federal GHG Tailoring Rule for Title V operating permits. Specifically, this new regulation will update the Tailoring Rule's amended definition of "major source" and add the new definition "subject to regulation" to align KDHE's Title V permitting definitions with the federal regulations. K.A.R. 28-19-200(kk) was last amended in 1997.

The applicability of KDHE's Title V permitting regulations (K.A.R. 28-19-500 *et seq.*) is triggered by the definition of "major source" as defined at K.A.R. 28-19-200(kk). Currently the definition does not rely on the phrase "subject to regulation," therefore we cannot simply depend on an interpretation of the term to implement the Tailoring Rule. Further, the final Tailoring Rule amends the existing definition of "major source" to incorporate the phrase "subject to regulation" to implement the part 1 and 2 thresholds for greenhouse gases (GHGs).

K.A.R. 28-19-350: Prevention of Significant Deterioration of Air Quality

The Bureau is proposing to amend K.A.R. 28-19-350 Prevention of Significant Deterioration (PSD). K.A.R. 28-19-350 implements the New Source Review (NSR) program that the USEPA promulgated at 40 CFR Parts 51 and 52 in response to requirements of the federal Clean Air Act, 42 U.S.C. §7401 *et seq.* NSR is a preconstruction permitting program that requires a major stationary source of air pollutants to obtain a permit before it can begin construction or make a major modification if the construction or modification will

increase emissions above certain trigger levels. Under Part C of Title I of the Clean Air Act, states have the primary responsibility for developing a state implementation plan and issuing permits subject to the emission limits and other control measures developed in the plan, which is approved by the USEPA.

Kansas implements the New Source Review (NSR) program for major stationary sources in attainment areas under the requirements of 40 C.F.R. §52.21 as adopted by reference in K.A.R. 28-19-350. NSR in attainment areas is commonly called Prevention of Significant Deterioration (PSD). To implement the final Tailoring Rule, KDHE must simply update the adoption by reference of 40 C.F.R. §52.21 and 40 C.F.R. Part 51 Subpart I to include the adoption of the Federal Register publication of the Tailoring Rule and amendments to §52.21. These proposed amendments align K.A.R. 28-19-350 with the revised federal regulations for PSD.

Calculating costs for the tailoring rule is difficult because facilities will be required to go through the BACT review process to determine what, if any, control technologies would apply to the proposed GHG emission source. Control technologies for landfills are fairly well developed, with cost ranges available, but for power plants, GHG control technologies are much less well defined. EPA is currently developing guidance for BACT, which we understand is to be released sometime in the next few months. These costs will vary from site to site depending on size. The largest sites are already regulated under the New Source Performance Standard, and all but

a few in the state have installed a landfill gas collection and control system. However, for the medium-sized facilities that are affected by the rule, here are some average capital and operating costs for a gas collection and flare system.

- One-time Capital Costs: collection and flare system: \$991,000 to \$1.5M, depending on the number of wells
- Annual O&M costs: \$80,000 to \$175,000 depending on the number of wells and the use of the gas (flare, direct use, pipeline quality or electricity)

A second source category for which some cost ranges are available is for electrical generating units. EPA has shared preliminary conclusions that energy efficiency projects would likely be BACT for EGUs. Two common energy efficiency projects at EGUs are installation of neural network systems to achieve improved day to day operations of the boilers and turbine upgrades to achieve improved efficiencies from an existing boiler. Projected costs for purchase and installation of a neural network operating system for a large EGU boiler are approximately \$3,000,000. Projected costs for upgrades of an existing turbine are approximately \$20,000,000 for a large EGU.

The last update to K.A.R. 28-19-350 occurred in 2009, making its adoption of the federal PSD regulation current up to July 1, 2007. The intent of the proposed regulations is only to address the EPA's Tailoring Rule. For this revision of K.A.R. 28-19-350, KDHE is not proposing to adopt any changes between July 1, 2007 and July 1,

2009. The currently proposed amendment to K.A.R. 28-19-350 updates the adoption of the federal regulations to August 2, 2010, the effective date of the final tailoring rule, which was published in the federal register on June 3, 2010. The Tailoring Rule is scheduled to take effect on January 2, 2011, at which time states would be responsible for its implementation. As a result, KDHE proposes to make the proposed adoption by reference effective January 2, 2011. This proposed action is limited to the changes necessary to implement the requirements of the Tailoring Rule.

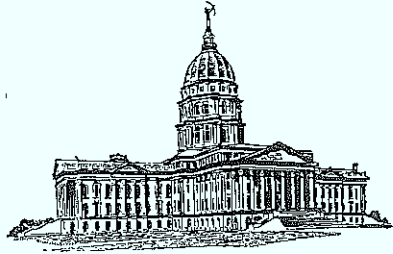
KDHE has already submitted draft versions of K.A.R. 28-19-200a and 28-19-350 to the EPA for their preliminary review. Additionally, a draft SIP has been submitted to EPA for parallel processing. After adoption of these regulations and their subsequent publication in the Kansas Register, KDHE will submit a formal revision of the State Implementation Plan to EPA.

The department has provided copies of these regulations and the associated Regulatory Impact Statement to the League of Kansas Municipalities, the Kansas Association of Counties, and the Kansas Association of School Boards. That concludes my testimony. Thank you, Mister Hearing Officer.

Attachment 4

STATE OF KANSAS

ALAN D. CONROY
Director
RANEY L. GILLILAND
Assistant Director for Research
J.G. SCOTT
Chief Fiscal Analyst



STAFF
LEGISLATIVE COORDINATING COUNCIL
INTERIM COMMITTEES
STANDING COMMITTEES
LEGISLATIVE INQUIRIES

KANSAS LEGISLATIVE RESEARCH DEPARTMENT
Room 68-West — State Capitol Building — 300 SW Tenth Avenue — Topeka, Kansas 66612-1504
PHONE (785) 296-3181 ♦ FAX (785) 296-3824 ♦ TTY (785) 296-3677
INTERNET: <http://www.kslegislature.org/kldr> E-MAIL: kslegres@kldr.ks.gov

September 24, 2010

RECEIVED
SEP 24 2010
SECRETARY OF
DEPT. HEALTH & ENVIRONMENT

Mr. Roderick Bremby, Secretary
Kansas Department of Health and Environment
1000 SW Jackson, Suite 540
Building Mail

Dear Secretary Bremby:

At its meeting on September 20, 2010, the Joint Committee on Administrative Rules and Regulations reviewed for public comment rules and regulations concerning general provisions, definitions to implement the federal greenhouse gas tailoring rule; and prevention of significant deterioration (PSD) of air quality. After discussion, the Committee had the following comments.

- Comment. The Committee suggests adding a date certain for each document adopted by reference, throughout the set of submitted regulations.
- KAR 28-19-200a. In subsection (a), the definition of "major source" in this regulation supersedes the definition of "major source" in KAR 28-19-200 for the purpose of the listed regulations. Please clarify which definition of "major source" applies in the listed regulations since there has been no amendment to any of the listed regulations. Also consider additional changes or amendments, if any should be needed, if the definition of "major source" contained in KAR 28-19-200a applies in the listed regulations for some purposes, while the definition of "major source" contained in KAR 28-19-200 needs to apply at the same time for other purposes.
- KAR 28-19-350. On page 3, the agency adopts by reference portions of 40 CFR Part 51 as amended by 75 *Federal Register* 31606-31607. Please indicate whether these are the only federal regulations being adopted by reference from 75 *Federal Register* 31606-31607. Specifically, please comment on the potential inclusion of 40 CFR 52.22, 40 CFR 70.12 and 40 CFR 71.13.

Prior to filing with the Secretary of State, review the history sections of the rules and regulations to update them to the most recent statutory citations, making certain the citations for authorizing and implementing statutes are correct and complete. Please indicate your agency's website address in the filing notice where proposed regulations can be located. In addition, if your agency accepts written comments by e-mail include this information in the public notice. Further, e-mail requests for public accommodation should be included as a part of the notice. Finally, verify

Secretary Bremby

- 2 -

that the adoption by reference of any materials included in the regulations is properly completed as prescribed in the *Policy and Procedure Manual for the Adoption of Kansas Administrative Regulations*.

Please make this letter a part of the public record on these regulations. The Committee will review the regulations which the agency ultimately adopts, and reserves any expression of legislative concern to that review.

To assist in that final review:

- Please inform the Joint Committee and me, in writing, at the time the rules and regulations are adopted and filed with the Secretary of State, of any and all changes which have been made following the public hearing.
- Please notify the Joint Committee and me, in writing, when your agency has adopted the regulations as permanent; delayed implementation of the regulations; or decided not to adopt any of the regulations.
- Also, please indicate separately to the Joint Committee and me, any changes made to the proposed regulations reviewed by the Committee.

Based upon direction from the Committee, failure to respond to each and every comment contained in this letter may result in the request that a spokesperson from your agency appear before the Committee to explain the agency's failure to reply.

Sincerely,



Raney L. Gilliland
Assistant Director for Research

RLG/jl

Keith Weber

From: Norm Bowers, Local Road Engineer [bowers@kansascounties.org]
Sent: Tuesday, September 07, 2010 10:46 AM
To: Keith Weber
Subject: Proposed Air Quality Regulations

Mr. Weber,

By letter dated August 26 you notified Randall Allen, Executive Director of the Kansas Association of Counties, of a public hearing and request for comments on proposed changes to administrative regulations concerning Title V air quality permits. Due to turnover and minimal staffing at the county level, a five year permit renewal can be easily overlooked. So our major concern on Title V permits is proper notification that the permit is expiring and the potential penalties if the permit would inadvertently expire. Please furnish me the K.A.R. that relates to KDHE requirement to notify the permit holder that the permit is scheduled to expire, and the fines or penalties should the permit expire.

Thank you for your help in this matter.

Norm Bowers, P.E. & L.S.
Local Road Engineer-KAC
300 SW 8th Ave. 3rd Floor
Topeka, KS 66603
ph 785-272-2585 Ext. 314
fax 785-272-3585

Keith Weber

From: Miles Stotts
Sent: Tuesday, October 19, 2010 9:19 AM
To: Keith Weber
Cc: Rick Brunetti; Tom Gross; David Stutt
Subject: FW: Comments K.A.R. 28-19 - Title V GHG Tailoring Rule
Attachments: KDHE Tailoring Rule Comments.doc

Keith – please print and include in our packet. Thanks, Miles

Miles Stotts
Bureau of Air
Kansas Department of Health and Environment
(785) 296-1615

This electronic communication is from the Kansas Department of Health and Environment and may contain inform:

From: George Thullesen [mailto:GThullesen@empiredistrict.com]
Sent: Monday, October 18, 2010 10:43 AM
To: Miles Stotts
Cc: Blake Mertens; Jeff Burkett
Subject: Comments K.A.R. 28-19 - Title V GHG Tailoring Rule

Mr. Stotts.

Attached are The Empire District Electric Company's comments regarding the proposed new regulation K.A.R. 28-19-200a and the proposed amendment to K.A.R. 28-19-350. At this time I also plan on attending the hearing on October 26.

Sincerely,

George G. Thullesen
Director of Environmental Policy
The Empire District Electric Company
602 S. Joplin Ave.
P.O. Box 127
Joplin, MO 64802

--

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October 19, 2010

Miles Stotts
Kansas Department of Health and Environment
Bureau of Air
1000 S.W. Jackson, Suite 310
Topeka, KS 66612

RE: Kansas State Proposed Regulation
Number K.A.R. 28-19 – Title V GHG Tailoring Rule

Dear Mr. Stotts:

The Empire District Electric Company (Empire District) appreciates the opportunity to comment on the Kansas Department of Health and Environment's (KDHE) proposed Title V GHG Tailoring Rule. Empire District is an investor-owned utility serving over 168,000 electric and 44,000 natural gas customers in the states of Missouri, Kansas, Oklahoma and Arkansas. Our Riverton Power Station is located in Riverton, KS.

Empire District does not support the EPA's regulation of GHGs.

We submitted comments to EPA relating that:

1. The GHG Tailoring Rule was not an efficient use of taxpayer money
2. The EPA was not granted the authority to deliberately limit GHG emissions from larger sources through their absurd results approach which will result in needless litigation, and
3. The Clean Air Act was written at an earlier time for the protection of the public and not as a tool to try to compete on an international scale.

Empire District believes that the regulation of GHGs should be governed by new legislation created by the United States Congress.

Empire District supports KDHE's proposed new air quality regulation K.A.R 28-19-200a and the proposed amendment to K.A.R. 28-19-350.

Empire District realizes that the KDHE is now faced with a decision to either revise their current air quality regulations in order to regulate GHGs under the existing Title V and PSD programs or relinquish GHG regulating authority to the EPA. Relinquishing this authority would result in a dual Title V and PSD permitting process where EPA regulated GHGs and the KDHE regulated all

Kansas State Proposed Regulation
Number K.A.R. 28-19 – Title V GHG Tailoring Rule

remaining pollutants. Until such a process could be implemented a Title V permitting moratorium might exist in Kansas. If GHGs are regulated under the CAA Empire District firmly asserts that we prefer the KDHE as the GHG regulatory authority in Kansas. Furthermore, a Title V permitting moratorium would be detrimental to economic growth within the state. Therefore, Empire District supports the adoption of the proposed K.A.R 28-19 Title V GHG Tailoring Rule revisions including amendments to K.A.R. 28-19-350 as proposed by the KDHE.

Should you have any questions I can be contacted at (417) 625-5123 or at gthullesen@empiredistrict.com. Thank you for your consideration.

Sincerely,

George G. Thullesen
Director of Environmental Policy



October 26, 2010

Kansas Department of Health and Environment
Bureau of Air
Kansas State Proposed Regulation
Number K.A.R. 28-19 – Title V GHG Tailoring Rule
Public Hearing
1000 S.W. Jackson, Suite 310
Topeka, Kansas

Oral Statement

Opening Information

George Thullesen
Director of Environmental Policy
The Empire District Electric Company
602 S. Joplin Ave.
Joplin, MO 64801

Comments

The Empire District Electric Company (Empire District) is an investor-owned utility serving over 168,000 electric and 44,000 natural gas customers in Missouri, Kansas, Oklahoma and Arkansas. One of our generating facilities is the Riverton Power Station located at Riverton, KS in the southeast corner of the state.

Empire District does not support the EPA's regulation of GHGs and believes that the U.S. Congress is the vehicle for establishing legislation to specifically address GHG emissions. Our position recognizes that GHG legislation will affect a number of the Departments in the Executive Branch of the U.S. Government and significantly impact the nation as a whole.

However, given the current situation where it appears that EPA will regulate the emission of GHGs via the Tailoring Rule, we fully support the KDHE in its effort to amend their existing regulations in order to be the permitting authority for GHGs. Empire District supports the idea that the CAA was written for the states to be the leading authority for implementation. In addition, Empire District recognizes and respects the KDHE and the professional judgment of their staff.

Again, Empire District supports the proposed K.A.R. 28-19 – Title V Tailoring Rule and believes that its finalization will provide Kansas stakeholders with the most efficient and economical process possible for permitting under the Tailoring Rule.

Empire District appreciates the opportunity to provide these oral comments.

Sincerely,

George Thullesen

Keith Weber

From: Miles Stotts
Sent: Wednesday, October 27, 2010 8:41 AM
To: Tom Gross; Rick Brunetti; Keith Weber
Cc: Melissa Weide
Subject: FW: Comments on Section KAR 28-19-200a and KAR 28-19-350
Attachments: ICBA Greenhouse Gas White Paper 06_2009.pdf

Miles Stotts
Bureau of Air
Kansas Department of Health and Environment
(785) 296-1615

This electronic communication is from the Kansas Department of Health and Environment and may contain inform.

From: Scheinpflug, Larry [mailto:LScheinpflug@columbianchemicals.com]
Sent: Tuesday, October 26, 2010 6:31 PM
To: Miles Stotts
Cc: Steele, Keith; Loudermilk, John; Gaynor, Joe; Graber, Cody; Siegel, Jim
Subject: Comments on Section KAR 28-19-200a and KAR 28-19-350

Miles,
It was a pleasure speaking with you today and I would like to provide comments on the proposed rules for Section KAR 28-19-200a and KAR 28-19-350 as it relates to the implementation of the Federal Greenhouse Gas Tailoring Rule.

First, a brief description of our interest in the proposed KDHE rules. Columbian Chemicals Company operates a carbon black plant located in Hickok, Kansas which is in the southwestern corner of Kansas. We are a provider of high-quality carbon black additives for rubber, plastic, and liquid products. Our products add strength, durability, and enhanced performance to products consumers use every day such as automobile tires and toner in printers.

I have attached a White Paper developed by our Industry which is the International Carbon Black Association (ICBA). This document was prepared during the height of proposed legislation by the US House of Representatives and the US Senate in 2009. This is an excellent source for your review.

As noted on page one of the attached document, "CO2 is the significant GHG concern for carbon black manufacturing. Most of the CO2 emissions released to the atmosphere originate from combustion of tail gas for pollution control rather than from the leakage or release of uncombusted tail gas. Because the industry competes in a global market, energy conservation measures such as waste heat recovery are already implemented in U.S. carbon black operations to minimize operating costs. As such, the opportunities for further reduction in GHG emissions can only be made through reducing production. Reduced production translates to losses of jobs and investments in the U.S. Onerous GHG regulations in the U.S. would result in significant increase to the price of tires and other rubber products for consumers, and the industries tied to carbon black will suffer the same issues of cost competitiveness and loss of U.S. jobs. To avoid moving the carbon black industry overseas, fair treatment of the industry under a U.S. or Kansas GHG regulatory strategy will be essential.

Carbon Black manufacturing is one of many "Trade Exposed Industries" which are at significant risk of "carbon leakage" (see section 3.4 in the attached report). Carbon leakage is defined as the relocation of industrial

activities with CO₂ emissions outside of a GHG regulated area, due to the additional costs directly or indirectly imposed by the regulations. These sectors could be forced by international competitive pressures to relocate production to countries that do not impose comparable constraints on emissions. This would simply increase global emissions without any environmental benefit. Carbon leakage is likely to occur if carbon costs are high and cannot be passed on to consumers, as long as climate policy commitment is globally incomplete and if production is exposed to international competition. In other words, if a company has to pay for CO₂ emissions and the price is too high, it may be in a company's best interest to move their operations overseas where GHG regulations do not exist. Keep in mind that for carbon black production the only way to reduce GHG emissions is to reduce production as noted previously.

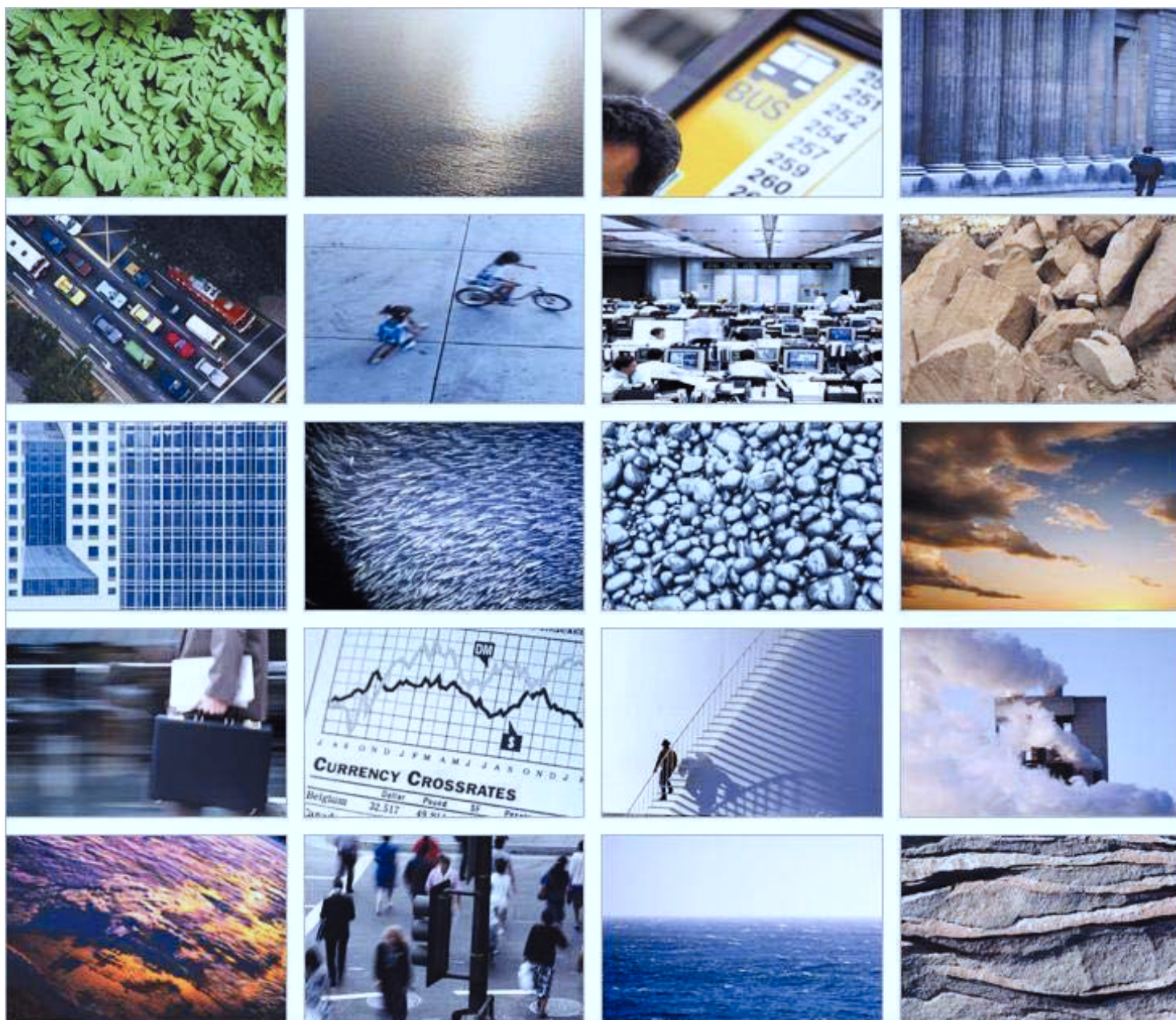
It is important to note that the European Union (EU) has devised an Emission Trading Scheme (EU ETS) based on the Cap & Trade principle and split into three distinctive periods. The First Phase (2005-2007) was used as a "learning by doing" phase to prepare for the crucial second trading period. The Second Phase (2008-2012) coincides with the first Kyoto Commitment period. Companies must annually surrender sufficient European Union Allowances (EUA) and interchangeable carbon credits (CER, ERU) equating to the amount of CO₂ they have actually emitted in that year. Any shortfall can be covered by the purchases of credits on the open market. Carbon black plants were typically given free allowances since the EU recognized that for carbon black production the only way to reduce GHG emissions is to reduce production. The Third Phase (2013 – 2020) has not been fully defined but the carbon black industry has already been recognized as an exposed industry. As such, companies having production facilities in Europe have been asked to provide benchmark values on their products to help the European Commission decide on how best to allocate free allowances for this industry at risk of carbon leakage. This resolution was passed in December 2009. The following link is the official EU ETS website: http://ec.europa.eu/environment/climat/emission/citl_en.htm. Please review the sections under "carbon leakage" and "benching marking" which has lead to free CO₂ allocations for the carbon black industry.

The EU has already recognized the carbon black industry amongst a long list of trade exposed industries subject to carbon leakage. It is in the best interest of KDHE to educate themselves on the list of other trade exposed industries in their state so their economy doesn't suffer from carbon leakage due to companies moving overseas or within the US depending upon State to State regulatory differences.

Again, the only way for carbon black producers to reduce CO₂ emissions is to reduce the production of carbon black product. I suggest that KDHE either provide free CO₂ allowances to the carbon black industry or exempt the industry from controlling CO₂ emissions to prevent carbon leakage. Either one of these actions would attract industries to the state and maintain the industries already doing business in Kansas.

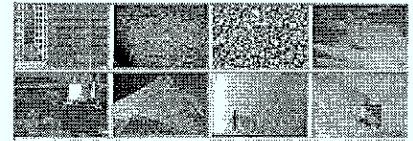
Best regards,
Larry Scheinpflug
Environmental Manager
Columbian Chemicals Company
770-792-9434

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White Paper: The Carbon Black Industry's Position on Potential Greenhouse Gas Legislation for the United States

June 16, 2009



Project 0097421

White Paper: The Carbon Black Industry's Position on Potential Greenhouse Gas Legislation for the United States

For and on behalf of Environmental Resources Management Limited.

Author: Sushil Nadkarni

Position: Project Manager

Signed:

Approved by: Matthew J Skific, P E

Position: Partner

Signed:

Date: June 16, 2009

Reference No: g:/2009/0097421/1325dftrpt Rev 2

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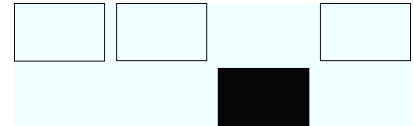
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Annex A

Summary of Historical and Current Legislative Trends

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Executive Summary

The International Carbon Black Association (ICBA) is a scientific, non-profit corporation that represents leading companies engaged in the manufacture of carbon black in North America, South America, Europe, and Asia. Originally founded in 1977, the objectives of the ICBA include the funding of investigations, research, and analyses relating to the health, safety, and environmental aspects of the production and use of carbon black, and communicating with government agencies regarding such matters. Carbon black is used in many consumer products, such as vehicle tires, rubber, inks and toners (ICBA, 2006a).

This paper supports a policy advocacy position by ICBA to address the issue of Greenhouse Gas (GHG) emissions from the U.S. carbon black industry. Carbon black production releases CO₂ as an unavoidable chemical reaction in the production process. As a result, the carbon black industry stands to be directly affected by any federal and state requirements relating to CO₂ emissions and, therefore, is interested in any GHG emission legislation.

CO₂ is the significant GHG of concern for carbon black manufacturing. Most of the CO₂ emissions released to the atmosphere originate from combustion of tail gas for pollution control rather than from the leakage or release of uncombusted tail gas. Because the industry competes in a global market, energy conservation measures such as waste heat recovery are already implemented in U.S. carbon black operations to minimize operating costs. As such, the opportunities for further reduction in GHG emissions can only be made through reducing production. Reduced production translates to losses of jobs and investments in the U.S. GHG regulations in the U.S. would result in significant increase to the price of tires and other rubber products for consumers, and the industries tied to carbon black will suffer the same issues of cost competitiveness and loss of U.S. jobs. To avoid moving the carbon black industry overseas, fair treatment of the industry under a U.S. GHG regulatory strategy will be essential.

ICBA Greenhouse Gas Position Statement

The ICBA understands that GHG emissions may impact the climate and pose a challenge to the environment and the global economy. The ICBA member companies pride themselves on commitments to GHG reductions as responsible corporate stewards. This is evident through innovative technology improvements, participation in the EPA Climate Leaders program, and other specific initiatives committed to improving operating efficiency, which is the most significant way the industry reduces its energy and fuel use.



ICBA Greenhouse Gas Advocacy Position

While the ICBA member companies understand that they play a role in addressing global climate change and greenhouse gas reduction (0.045% of total U.S. GHG emissions), these same companies are limited in their ability to control direct greenhouse gas emissions. This is due to the fundamental process chemistry for manufacturing carbon black, which makes carbon black manufacturing a “fixed process emissions” source. So although reduction efforts are underway at each company, this ICBA advocacy policy has been developed to pursue education and policy change:

- To ensure the carbon black manufacturing industry is recognized as a fixed process emissions source, whereby substantial direct emission reductions can only occur through decreased production;
- To recognize that the U.S. carbon black industry is an exposed industry, and that U.S. carbon black manufacturers would be subject to carbon leakage to foreign nations; and
- To clearly delineate the differences between carbon black and “black carbon” to ensure the manufactured carbon black product is not interpreted in any way to be the same as black carbon or soot, through definition or interpretation.

Suitable outcomes from any GHG legislation for the U.S. ICBA member companies would include:

- Free or subsidized GHG emission allocations;
- Rebates for “exposed industry” status;
- Extra allowances for on-site energy recovery; and
- Specific exclusion for carbon black from any regulation of “black carbon.”



1 Introduction to the Carbon Black Industry

1.1 Physical Description of Carbon Black

Carbon black [C.A.S. NO. 1333-86-4] is virtually pure elemental carbon in the form of colloidal particles that are produced by incomplete combustion or thermal decomposition of gaseous or liquid hydrocarbons under controlled conditions. Its physical appearance is that of a black, finely divided pellet or powder. Its use in tires, rubber and plastic products, printing inks and coatings is related to properties of specific surface area, particle size and structure, conductivity and color. Carbon black is also in the top 50 industrial chemicals manufactured worldwide, based on annual tonnage. Current worldwide production is about 18 billion pounds per year [8.1 million metric tons]. Approximately 90 percent (%) of carbon black is used in rubber applications, 9% as a pigment, and the remaining 1% as an essential ingredient in hundreds of diverse applications (ICBA, 2006b).

Modern carbon black products are direct descendants of early "lamp blacks" first produced by the Chinese over 3,500 years ago. These early lamp blacks were not very pure and differed greatly in their chemical composition from current carbon blacks. Since the mid-1970s, most carbon black has been produced by the oil furnace process, which is most often referred to as furnace black (ICBA, 2006b).

Carbon black can be distinguished from other forms of elemental carbon, such as graphite and charcoal by its fine particulate nature, shape, structure, and degree of fusion of its particles (McCunney et al, 2001).

1.2 What Carbon Black Is Not

Carbon black is not soot or black carbon, which are the two most common, generic terms applied to various unwanted carbonaceous by-products resulting from the incomplete combustion of carbon-containing materials, such as oil, fuel oils or gasoline, coal, paper, rubber, plastics and waste material. Soot and black carbon also contain large quantities of dichloromethane and toluene-extractable materials, and can exhibit an ash content of 50% or more. The ICBA differentiates carbon black from black carbon as follows: Black carbon is a by-product of the incomplete combustion of carbon-containing materials and is not a primary, intentionally produced chemical.

Carbon black is chemically and physically distinct from soot and black carbon, with most types containing greater than 97% elemental carbon arranged as aciniform (grape-like cluster) particulate. On the contrary, typically less than 60% of the total particle mass of soot or black carbon is composed of carbon, depending on the source and characteristics of the



particles (shape, size, and heterogeneity). In the case of commercial carbon blacks, organic contaminants such as polycyclic aromatic hydrocarbons (PAHs) can only be extracted under very rigorous laboratory analytical procedures (soxhlet extraction using organic solvents and high temperatures). These extracts, though they may be similar to those derived from soot, are unique, however, because carbon black extracts exist only in extremely small quantities. Water and body fluids are ineffective in removing PAHs from the surface of carbon black and, therefore, they are not considered to be biologically available. Two other commercial carbonaceous products often confused with carbon black are activated carbon and bone black. Each is produced by processes different from commercial carbon black and possesses unique physical and chemical properties.

1.3 Uses of Carbon Black

Approximately 90% of carbon black produced worldwide is used in the tire and rubber industry (ICBA, 2004). Today, because of its unique properties, the uses of carbon black have expanded to include pigmentation, ultraviolet (UV) stabilization and conductive agents in a variety of everyday and specialty high performance products, including:

- **Tires and Industrial Rubber Products:** Carbon black is added to rubber as both filler and a strengthening or reinforcing agent. For various types of tires, it is used in inner liners, carcasses, sidewalls and treads utilizing different types based on specific performance requirements. Carbon black is also used in many molded and extruded industrial rubber products, such as belts, hoses, gaskets, diaphragms, vibration isolation devices, bushings, air springs, chassis bumpers, and multiple types of pads, boots, wiper blades, fascia, conveyor wheels, and grommets. Consumption of carbon black in tires is expected to grow at a compounded annual rate of 3.6% during 2001-2010 (Global Industry Analysts, Inc., 2008);
- **Plastics:** Carbon blacks are now widely used for conductive packaging, films, fibers, moldings, pipes and semi-conductive cable compounds in products such as refuse sacks, industrial bags, photographic containers, agriculture mulch film, stretch wrap, and thermoplastic molding applications for automotive, electrical/electronics, household appliances and blow-molded containers;
- **Electrostatic Discharge (ESD) Compounds:** Carbon blacks are carefully designed to transform electrical characteristics from insulating to conductive in products such as electronics packaging, safety applications, and automotive parts;
- **High Performance Coatings:** Carbon blacks provide pigmentation, conductivity, and UV protection for a number of coating applications including automotive (primer basecoats and clear coats), marine, aerospace, decorative, wood, and industrial coatings;



- **Toners and Printing Inks:** Carbon blacks enhance formulations and deliver broad flexibility in meeting specific color requirements (ICBA, 2006b).

Over the course of a century, carbon black has become a unique and critical component in a variety of widely used products. Despite ongoing attempts to substitute carbon black with silica, starches, reclaimed rubber, or other materials, none of the above has been able to match the performance of carbon black and no new competing technologies are on the horizon. The closest substitute is amorphous silica, which has made some in-roads, particularly in Europe for some niche tire markets. Carbon black will remain the dominant rubber reinforcing agent due to its performance, installed capacity and product availability, and the ability to modify properties to meet performance requirements.

The only other potential substitutes to carbon black that have been identified are polyurethane tire or thermoplastic elastomers (TPE) replacing rubber parts, both of which have their own significant shortcomings. Polyurethane tire technology is 30 years old, and all of the major tire manufacturers have tried and failed to commercialize an effective substitute primarily due to uncompetitive urethane tire performance and manufacturing costs. Although TPE usage is growing, manufacturing cost remains high. TPE is best used in non-tire rubber goods and plastics, but the manufacturing process requires new equipment and even within these segments, carbon black is still required in many applications.

GHG emissions for the production of polyurethane are estimated to be 3.98 metric tons CO₂ equivalents per metric ton of product (Boustead, 2005). Among the most common TPE compounds used in the tire industry are Styrene-Butadiene (SB) and Polybutadiene (PB) used in synthetic rubber production. GHG emissions for the production of SB and PB are estimated to be 1.2 and 3.8 metric tons CO₂ equivalents per metric ton of product, respectively (Malcolm Pirnie, 2007; Boustead, 2005). U.S. carbon black production on the other hand is estimated to generate approximately 1.7 metric tons CO₂ equivalents per metric ton of product (U.S. EPA, 2008).

1.4

Market Information

The global carbon black market was valued at \$9.6 billion U.S. Dollars (USD) in 2007 while the North American market was estimated at approximately \$1.7 billion U.S. Dollars (USD) (Notch Consulting, 2009). Approximately four billion pounds of carbon black was produced in North America in 2008. In 2008, U.S. carbon black imports were valued at \$196.7 million USD (11.6% of the North American carbon black market value) from 26 countries. The industry also exported \$306.5 million USD (18% of the North American carbon black market value) worth of merchandise to 79 countries (Research and Markets, 2009). The total value of carbon black shipments in 2006 was approximately \$1.51 billion



USD (U.S. Census Bureau, 2008). The cost of purchased electricity and fuel for the carbon black industry was approximately \$9.6 million USD in the same year (U.S. Census Bureau, 2008). In 2006, total exports and general imports of carbon black in the U.S. were valued at approximately \$226.2 million and 165.0 million USD respectively (USITC, 2009). The Waxman-Markey Bill specifies the above data sources for the calculation of energy intensity, GHG intensity, and trade intensity for the industry (See Section 3.4).

The U.S. carbon black industry employs approximately 2,500 direct employees in six states and twelve congressional districts, and affects more than 170,000 manufacturing jobs nationally to include rubber manufacturing, print ink manufacturing, and plastics industry sectors (U.S. Census Bureau, 2006). As seen above, the carbon black industry has the potential to impact several other industries (and jobs within those industries) that use carbon black as a raw material to make their products.



Carbon Black and GHG Emissions

The ICBA understands the environmental impact of GHG emissions and the global climate change crisis. Member companies are committed to minimizing GHG emissions through innovative technology improvements, and specific initiatives that target improved operational efficiency. This section addresses the manufacturing of carbon black and sources and controls for GHG emissions in the manufacturing process.

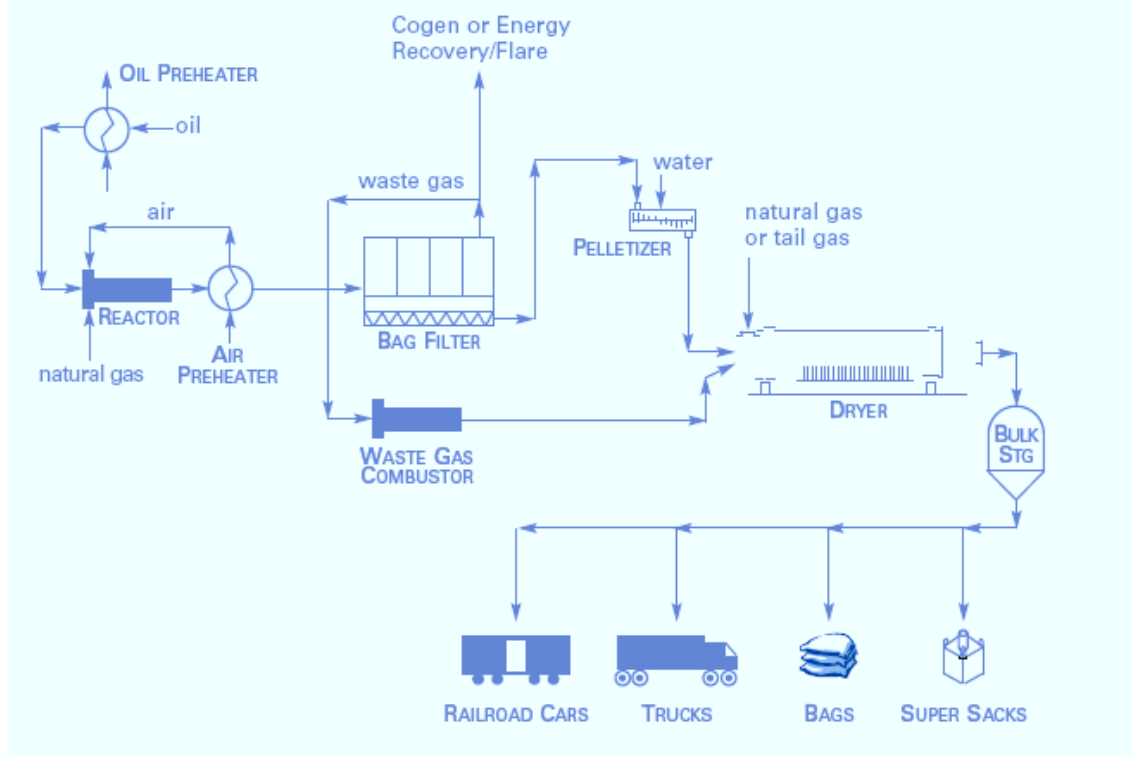
Carbon Black Manufacturing

Carbon black products are primarily manufactured commercially through the furnace black and thermal black processes, which accounts for approximately 95% and 2% of production, respectively (McCunney, 2001). As stated previously, CO₂ is the significant GHG of concern for carbon black manufacturing. Most of the CO₂ emissions released to the atmosphere originate from combustion of uncombusted tail gas (containing CO) for pollution control. While CH₄ and N₂O emissions from the furnaces and combustion units are present, they are not considered significant.

The furnace black process is the most commonly used carbon black manufacturing process globally and in the U.S. The process utilizes a closed furnace reactor to atomize the primary feedstock under carefully controlled temperature and pressure. The primary feedstock, a by-product of petroleum refining, is injected into a hot gas stream where it vaporizes and then decomposes in the vapor phase to form microscopic carbon particles (ICBA, 2004). Furnace reactors are heated through the combustion of a secondary feedstock, often natural gas or oil, and a portion of the primary feedstock. The carbon black produced is conveyed through the reactor, cooled, and collected in bag filters in a continuous process (ICBA, 2004). The furnace black process generates process gas, also known as tail gas. The tail gas, a potential source of GHG and air emissions, is a low calorific gas which contains CO₂, CO, sulfur compounds, CH₄, and volatile organic compounds such as ethane and acetylene (IPCC, 2006). A portion of the tail gas is often burned for energy recovery to heat the downstream carbon black product dryers while the remainder may be used to produce heat, steam, or electric power. The tail gas can also be flared or otherwise controlled before venting to the atmosphere (McCunney et al, 2001; Carbon Black MACT/GACT standards).



Figure 1. Typical Furnace Black Process Diagram



The thermal black process produces carbon black by thermal decomposition of gaseous hydrocarbons (such as natural gas) in the absence of air. The natural gas is injected into a hot refractory-lined furnace and the heat from the refractory material decomposes the hydrocarbon feedstock into carbon black and hydrogen. The process generates a reform gas which contains hydrogen and small amounts of other gases including methane, nitrogen, ethane and acetylene. The thermal black process is endothermic, thus this reform gas is recovered and used to re-heat the furnace to production temperature making it unnecessary to use additional feedstock to fulfill this requirement. The excess heat generated by the process may be used to produce steam, or electric power, or it can be flared or otherwise controlled before venting to the atmosphere. The aerosol material stream is quenched with water sprays and filtered in a bag house. The exiting carbon black may be further processed to remove impurities, then pelletized, screened, and then packaged for shipment (ICBA, 2004). The process uses a pair of furnaces that alternate approximately every five minutes between preheating and carbon black production (IPCC, 2006). CO₂ is the main source of GHG emissions from thermal black process. The main source of CO₂ is heat cycle exhaust generated in the heating of the refractory-lined furnace. Smaller amounts of CH₄ are released through leakage, fugitive emissions, venting and stationary combustion.



Carbon Black GHG Emission Characteristics

While the carbon black industry, along with other industry sectors, has a role in improving global climate change through greenhouse gas and energy reduction, ICBA member companies are limited in their ability to control direct greenhouse gas emissions. The carbon black manufacturing industry is a “fixed process emissions source” and, as such substantial direct emission reductions can only come through decreased production. Direct GHG emissions from the carbon black manufacturing process originate primarily from the combustion of primary and secondary feedstock, and the combustion (for heat recovery), flaring, or other control of tail gas to the atmosphere (Leendertse and van Veen, 2002). A vast majority of the CO₂ from carbon black manufacturing is generated from the combustion of tail gas from the thermal incinerator for pollution control rather than the release of uncombusted tail gas from the furnace. Indirect GHG emissions are associated with electricity purchases from external sources and are not directly associated with carbon black process.

In calculating the GHG emissions from the carbon black industry, the U.S. EPA uses the carbon lost during the production process as the basis for determining the amount of CO₂ released during the process. The calculation methodology described by the U.S. EPA in “Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2006” assumes that the carbon lost in this process is emitted to the atmosphere as either CH₄ or CO₂. For the purpose of emissions estimation, it is also assumed that 100% of the primary carbon black feedstock is derived from petroleum refining by-products since there are no data available concerning the annual consumption of coal-derived carbon black feedstock. The calculation further assumes that the furnace black process is the only process used for the production of carbon black because of the lack of data concerning the relatively small amount of carbon black produced by other processes (U.S. EPA, 2008a).

CO₂ emissions from carbon black production in 2007 were estimated by the U.S. EPA as approximately 2.6 million metric tons CO₂ Eq. (U.S. EPA, 2009). This represents less than 1% of GHG emissions from industrial processes and approximately 0.04% of total U.S. GHG emissions for 2007 (see Table 2-1, below). Industries with production-based CO₂ emissions in a similar position to the carbon black industry such as cement, soda ash, lime, iron and steel had higher GHG emissions for 2007 than carbon black production. The carbon black industry’s contribution to U.S. GHG emissions, therefore, is extremely small in comparison to other significant sources.



Table 2.1 ► **Comparison of Estimated 2007 GHG Emissions for Power Generation, Transport, and Relevant U.S. Industries (derived from data from U.S. EPA, 2009)**

Sector	Estimated 2007 GHG Emissions (Million Metric Tons CO ₂ Eq)	% of Total U.S. GHG Emissions
Carbon Black production	2.6	0.04
Petroleum Systems *	28.7	0.40
Nitric Acid production	21.7	0.22
Titanium Dioxide Production	1.9	0.03
Cement production	44.5	0.62
Soda Ash production	4.1	0.06
Lime production	14.6	0.20
Iron and Steel production	74.3	1.04
Power generation	2,445.1	34.2
Transportation	1,995.2	27.9

* Petroleum systems as associated with crude oil production, transportation, and refining

2.3 Constraints on Carbon Black Industry to Reduce Direct GHG Emissions

Process-related direct CO₂ emissions in carbon black manufacturing result mainly from the use of primary feedstock (Leendertse and van Veen, 2002). While the majority of emission-intensive sectors generate GHG emissions through fossil fuel combustion, the majority of GHG emissions from the carbon black industry are directly correlated to production.

Direct GHG Emissions are those from stationary combustion of fuel in boilers and furnaces, mobile combustion of fuels from transportation of vehicles, along with process and fugitive emissions. Indirect GHG Emissions are those associated with the generation of electricity, heat, or steam purchased for facility consumption. Other indirect emissions include those associated with the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting company outsourced activities, or waste disposal (WRI, 2005).

Process emissions are strongly dependent on the grade mix which is driven by customer demand (ICBA, 2006c). The production of grades with smaller particles tend to result in higher organic and CO emissions than the grades with larger particles (U.S. EPA, 1995). The amount of product produced per unit of carbon black oil is referred to as “yield” and varies across the grade mix. Yields are dependent on the feed composition and the grade of carbon black produced, and for the oil furnace process range from 35% to 65% (U.S. EPA, 1995). The carbon black industry has been working for years to improve yields through process modifications. While company confidential, there is direct economic benefit from improved yields.



Depending on the grade, a significant portion of the process gas or tail gas stream produced as a byproduct of carbon black production is used as a fuel in place of, or as a supplement to, natural gas or electricity. Examples where process gas or tail gas is used instead of natural gas include oil pre-heaters, pellet dryers, and cogeneration units. It should be noted that cogeneration technology can only reduce indirect CO₂ emissions associated with electricity purchases and not direct emissions from carbon black manufacturing. Process gas is also used to indirectly preheat air that is fed to the reactor and to dry the carbon black product, thereby reducing the amount of natural gas needed to heat the reactor to a specific temperature or to dry the carbon black product.

Opportunities for carbon reduction initiatives such as fuel switching, use of low-carbon feedstock, abatement technologies and optimization of energy efficiency for the carbon black industry are extremely limited. The carbon black industry continues to seek and implement improvements in yields and energy efficiency. Unfortunately, these correlate to relatively small reductions in direct GHG emissions considering the steps the industry has already taken. **Significant GHG emission reductions from the carbon black industry can only be achieved through the reduction of production.**

There are currently no industry-wide abatement technologies for the reduction of direct GHG emissions within the carbon black industry. Although co-generation is a potential technology for the reduction of indirect GHG emissions from electricity usage, this technology is not in place at every carbon black facility in the U.S. Currently, five of the fifteen U.S. carbon black plants have cogeneration facilities.

2.4 **Avoided Emissions**

Carbon black primary feedstocks originate from the petroleum refining process. Due to its high calorific value, the primary feedstock may alternatively be used for fuel oil blending (Dow, 2005). According to U.S. EPA data, 2.159 million metric tons of primary feedstock was used in carbon black production in 2006 (U.S. EPA, 2008). If the carbon black feedstock was used in fuel combustion rather than in the production of carbon black, the GHG emissions generated would be approximately 64% greater than those emitted from carbon black production. Thus, the use of refinery by-products for carbon black production avoids GHG emissions that would otherwise be generated from the eventual combustion of blended fuel oils. **There is a case to be made that the carbon black industry should receive credit for the avoided emissions and its investments in co-generation technologies that have reduced indirect GHG emissions and provided electricity to third parties. In addition, credit should be given to the carbon black industry for electric and steam cogeneration for net reductions of other industry fuels combustion.**



3 **Greenhouse Gas Legislation: Potential Impacts on Carbon Black Industry**

3.1 **Historical and Current GHG Legislation**

GHG policy is emerging in the U.S. despite the absence of federal legislation. Many states and regions are adopting climate change reporting and reduction rules. Under the Obama Administration, increased momentum is building to address climate change in the U.S. A detailed discussion of historical and current GHG legislation and trends is included in Annex A.

Of particular note is the recently proposed EPA mandatory reporting rule, which directly impacts the carbon black industry from a reporting standpoint. The first annual report for stationary source emissions would be submitted to EPA by March 31, 2011, for calendar year 2010 data. The new reporting requirements will apply to suppliers of fossil fuel and industrial chemicals, manufacturers of motor vehicles and engines, as well as large direct emitters of GHG with emissions greater than or equal to 25,000 metric tons CO₂ equivalent emissions per year. Under the new proposed GHG reporting rule, the USEPA classifies carbon black production under “Petrochemical Production” and includes it in the same category as petrochemical products such as methanol, acrylonitrile, ethylene, ethylene oxide, and ethylene dichloride. However, under the EU ETS Annex I activities, carbon black production is classified under “Chemical Industry,” which is a category of basic inorganic chemicals (EC, 2008). There is debate as to whether carbon black production should be categorized in the combustion category for plants that generate power from tail gas energy recovery.

3.2 **Effects of Currently Proposed U.S. GHG Legislation on Carbon Black Industry**

The North American market for carbon black is estimated at approximately \$1.7 billion U.S. Dollars (USD) in 2007 (Notch Consulting, 2009). The carbon black industry employs approximately 2,500 direct employees in six states and twelve congressional districts. In addition, the industry employs a great number of contractors on a periodic or seasonal basis for various construction, turnaround, maintenance, and other projects. Combined with the limited opportunities for emission reduction discussed in Section 2, any proposed legislation that requires reductions in GHG emissions from the U.S. carbon black industry would result in direct reduction in the market value of the industry.

A high-level projection of approximate economic impact for a cap-and-trade program can be drawn from the current estimated CO₂ emissions for the U.S. carbon black industry and the currently valued allowances under RGGI and the EU-ETS. This assumes 100% of the



allowances will be auctioned. Should a certain percentage of these allowances be allocated to industry, that amount would be lower than the values below by the specific percentage allocated.

- 2007 Estimated Carbon Black GHG Emissions = 2.6 Million Mt CO_{2e}
- 2007 Estimated CO_{2e} Emissions Intensity = 1.68 Mt CO_{2e}/Mt Carbon Black produced

Table 3.1 ► **Scenario Analysis**

CO _{2e} Auction Value (\$/Mt CO _{2e})	Cost to Carbon Black Production (\$/Mt Carbon Black)	Total Approximate Cost to Carbon Black Industry (\$ - Million USD)
80 (Worst-Case)	134.02	229
50	83.76	143
25	41.88	71.6
15 (Current EU-ETS Allowance Value)	25.13	43
3.51 (Current RGGI Allowance Value)	5.88	10

The U.S. Environmental Protection Agency released a cost estimate of the initial draft of the Waxman-Markey Bill and projected a carbon allowance price at \$13-\$17 for 2015. After recent revisions of the bill, EPA found that the relaxation of the 2020 cap on carbon dioxide emissions could lower allowance prices by 3% and changes to the offset provisions could further reduce the allowance price 7%.

Considering the U.S. policy response to climate change, potential competitiveness risks would be felt most directly by energy-intensive industries whose goods are traded internationally, such as the carbon black industry (Pew, 2009). Trade exposed industries, like carbon black, would see a decline in output and lose market share to foreign competitors if they are unable to reduce emissions or pass carbon costs to downstream users or consumers (WRI, 2008). In a forthcoming Pew Center report, historical relationship between energy prices and production, trade, and employment are analyzed in order to project the potential competitive impacts of mandatory domestic GHG limits, at a price of \$15/Mt CO₂. Looking at industries in a similar position to carbon black such as iron and steel, aluminum, cement, and bulk glass, the analysis concludes that declines of production ranging from -2.6% to -5.3% are anticipated within those sectors (Pew, 2009). However, since such industries may achieve GHG reductions through energy-efficiency, use of alternative fuels and raw materials or decrease in fuel usage, the impact of mandatory GHG reductions on competitiveness will likely be less than for the carbon black industry which has a limited ability to achieve GHG reductions and which will be forced to absorb the



increased cost of production. In addition, the increase in production cost for the carbon black industry would also have an effect on the competitiveness of directly and indirectly related industries likely resulting in an increase in cost of consumer goods such as automobiles, tires, plastic products, printing ink and other related goods.

3.3 **Effects of Currently Proposed U.S. GHG Legislation on U.S. Economy**

There are many uncertainties that affect the impact of climate legislation on the economy. Among the most important uncertainties are:

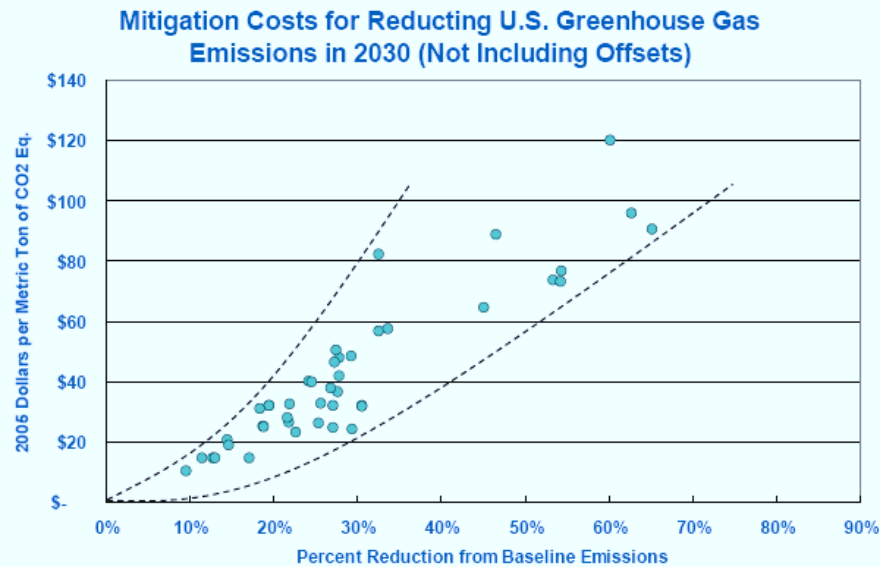
- The extent and stringency of international actions to reduce GHG emissions by developed and developing countries;
- The availability for foreign credits and international offset projects;
- The availability of domestic offset projects;
- The degree to which new nuclear power is technically, politically, and socially feasible; and
- Whether or not carbon capture and storage technology will be available on a large scale.

These uncertainties require economic modeling to make assumptions that bring a wide range of costs to the economy, industry and the consumer. In fact, the EPA's analysis - led by Francisco C. de la Chesnaye, Chief of the Climate Economics Branch of the U.S. Environmental Protection Agency using the IGEM and ADAGE models - estimates ranges from 28% to 266% of the model developed by the Congressional Budget Office for 2015 (both modeling the Lieberman-Warner legislation). This is due in part to the model, baseline, technology assumptions and offsets.

As seen from chart below from a presentation by Robert Shackleton, Principal Analyst of the Macroeconomic Analysis Division of the Congressional Budget Office in April 2008, there is a wide range in costs of the Lieberman-Warner bill based on the percentage reduction requirement with similar ranges coming from the analysis of the legislation by EPA.



Figure 2



The environmental non-governmental organizations (NGOs) are quick to point out that no model can be completely trusted. They see the estimated impacts on the economy dwarfed by the potential for economic growth and the projected job losses and energy price impacts as smaller than recent volatility or regular employment averages.

According to a study led by Dr. Nathaniel Keohane, Director of Economic Policy and Analysis of the Environmental Defense Fund, of existing models that estimate the impacts on the U.S. economy of cutting GHG emissions under the Lieberman-Warner bill or similar policy, the projected economic impact of capping carbon is dwarfed by the variation in business-as-usual forecasts.

Should the price of carbon increase due to the current framework proposed under mandatory GHG legislation, the U.S. carbon black industry would become increasingly uncompetitive nationally and internationally. The loss in competitiveness would likely lead to the U.S. carbon black industry's relocation to countries with no or little legislated restrictions on GHG emissions. This would not only have a negative impact on the carbon black industry and downstream industries directly and indirectly related to the carbon black industry, but also on the communities that have come to depend on these industries.



Trade-Exposed Industries Concept

The cost of carbon established by a “Cap and Trade” system introduces an additional operating cost for emitting industries. Under the E.U. Emissions Trading Scheme and Australia’s proposed Carbon Pollution Reduction Scheme, industries exposed to a significant risk of carbon leakage may be constrained in their ability to pass increases in carbon costs on to the consumer due to global competition. These trade exposed industries will be given assistance (Guillot, 2008). Assistance, in the form of the allocation of free permits or emission allowances, will be provided to new and existing firms conducting activities considered as trade-exposed (EurActiv, 2008).

In the E.U., a precise methodology is being developed by the European Commission to identify sectors and activities that would be exposed to significant risk of carbon leakage, assuming full auctioning of allowances. These sectors would receive 100% of their CO₂ emission allowances free of charge (EC, 2008). Three member companies of the ICBA with operations in Europe, as part of the European Chemical Industry Council (CEFIC), are working to develop a carbon black industry benchmark to be used to allocate free allowances in EU-ETS Phase III Trading starting in 2013. Under this initiative, carbon black has the potential to be classified as an "exposed" industry subject to carbon leakage (i.e., potential loss of carbon black industry to other countries without similar GHG reduction targets). If successful, this initiative could result in free allowances in lieu of purchasing them in an auction. *It should be noted that the carbon black industry in Europe was not successful in obtaining an exemption from Phase II of the EU-ETS since the trade exposed argument was not made at that time. This argument is being made in Phase III.*

Similarly, the Australian Government will provide free permits or allowances for a high proportion of the emissions of the most emissions-intensive activities while providing significant but lower levels of assistance to activities that are moderately emissions intensive. This approach would ensure that all industries incur some of the costs of emitting with scaled assistance for those facing significantly more material costs than others. Carbon black production has been identified as an Emissions Intensive Trade Exposed industry (EITE) and would receive free permits or allowances, the quantity of which is yet to be determined (Government of Australia, 2008).

The Waxman-Markey draft bill includes a provision in which owners and operators of entities in eligible industrial sectors and subsectors receive annual rebates. The purpose of the rebates is to provide compensation for carbon emission costs incurred by trade exposed industrial sectors and subsectors under Title VII of the Clean Air Act. The rebate system is designed to ensure competitiveness and to avoid carbon leakage. Entities are considered eligible if they have:



- A 6-digit classification under NAICS;
- An energy intensity of at least 5%, or a greenhouse gas intensity of at least 5%; and
- A trade intensity of at least 15%.

The rebates provided to covered entities are phased out over time beginning in 2021.

3.5 **Canada's Fixed Emissions Concept**

Canada has recently finalized a framework for the reduction of industrial GHG emissions. The framework requires all sectors to reduce emissions intensity by 18% of 2006 levels by 2010 with a 2% improvement in subsequent years. Industries using fixed process emissions (i.e., emissions tied to production for which there is no alternative reduction technology) would receive a 0% target (Government of Canada, 2008). Fixed process emissions are defined as emissions that are:

1. From chemical processes that produce carbon dioxide emissions that are fixed to production; and
2. Created in a process where:
 - a. carbon that is chemically bound in the raw materials is removed from these materials to produce a carbon-free product (i.e. less than 1% carbon by mass); or
 - b. carbon is used to remove an undesired component from the raw material and where the raw material is not substitutable; or
 - c. unintentional oxidation of hydrocarbon feedstocks results from the catalytic conversion of these feedstocks into products; or
 - d. carbon dioxide entrained in ethane gas feedstock is removed and released to the atmosphere in order to process the feedstock (Government of Canada, 2008).

Fixed process emissions do not include the result of combustion of a fuel with gaseous oxygen, a process whose purpose is to reduce emissions of air pollutants from the facility or the release of carbon dioxide from the processing of crude oil or natural gas. The above definition of fixed process emissions may not cover all carbon black production. The ICBA advocates a broadening of the definition of fixed process emissions

The ICBA believes that GHG emissions from the carbon black industry can be categorized as fixed process emissions because the GHG emissions are tied to production and there is no alternative reduction technology. In carbon black production, 35 to 65% of the carbon in the



feedstock ends up in the product, while the remaining 35 to 65 produces carbon dioxide in fixed process emissions (EPA, 2008b; ICBA, 2009). As such, the ICBA should focus on getting a change the definition of fixed process emissions under the U.S. framework compared to how it is defined in the Canadian framework for reduction of GHG emissions.

Under the Waxman-Markey compensatory allowances provision, the Administration must distribute compensatory allowances to an entity for the nonemissive use, of petroleum-based or coal-based liquid or gaseous fuel, petroleum coke, natural gas liquid, or natural gas as a feedstock. The administrator must distribute a quantity of compensatory allowances equivalent to the number of tons of carbon dioxide equivalent of avoided emissions achieved through the use of this feedstock. Carbon black production utilizes petroleum-based feedstock from the petroleum refining process and avoids approximately 64% (estimated) of GHG emissions compared to use of the feedstock for fuel combustion. A case can be made for the allocation of compensatory allowances to carbon black facilities for the use of carbon black feedstock.



Consideration of Other Similar Industries

A number of other U.S. industries are in a similar position to the carbon black industry because the carbon is chemically bonded to the raw materials and released as CO₂ during the production process. As a result, CO₂ emissions are directly tied to production and opportunities to reduce GHG emissions via available or new technologies have already been exploited or are not available.

While the industries discussed below are similar to carbon black manufacturing in that they have a portion of GHG emissions in the form of fixed process GHG emissions, they differ from the carbon black industry in that a significant amount of emissions result from the use of large amounts of heat and energy to physically or chemically transform raw materials to product. As such, GHG reductions may be achieved through energy-efficiency, use of alternative fuels and raw materials, and decreased fuel usage. However, there are only limited opportunities for the carbon black industry to achieve GHG reductions though such means as the majority of CO₂ emissions are process related and come from carbon in the primary feedstock. The only way to achieve substantive GHG reduction for the carbon black industry is through the reduction of production.

The industries similarly situated to the carbon black industry include:

- Cement Industry
- Iron and Steel Industry
- Soda Ash Industry; and
- Lime Industry

4.1

Cement

Global cement production is the single largest anthropogenic source of CO₂ emissions next to fuel combustion, accounting for 5% of global emissions (Worell et al., 2001). GHG emissions from process-related sources originate primarily from the production of clinker in the cement-making process (Environment Canada, 2004). During the cement production process, calcium carbonate is heated in a cement kiln to form calcium oxide (lime) and CO₂. The lime combines with silica-containing materials to form clinker, releasing the CO₂ (U.S. EPA, 2008). The clinker is then allowed to cool, mixed with a small amount of gypsum, and used to make Portland cement. There is no known new technology on the horizon that will enable the industry to significantly reduce its current emissions intensity for clinker (CIF, 2008). In the U.S., the Cement industry is represented by the Portland Cement Association (PCA).



The PCA acknowledges the cement industry's role in reducing greenhouse gas emission produced by Portland cement manufacturing by:

- Promoting of the exclusion of process emissions in the development of a mandatory GHG regulatory scheme;
- Endorsing an approach where emission allowances are given to the key players in a carbon trading system for free;
- Believing in the development of mechanisms to avoid trade impacts of GHG regulation;
- Promoting GHG reduction through efficiency based outcomes; and
- Endorsing a greenhouse gas reporting program.

PCA has committed to a voluntary CO₂ emission reduction goal of 10% per ton of cementitious product produced or sold from a 1990 baseline by 2020. The reduction program's focus includes reducing GHG emissions through increased energy efficiency and decreased fuel use, use of alternative fuels and raw materials, and improved energy management practices and more efficient technologies. PCA has also participated in voluntary initiatives such as the U.S. Green Building Council, DOE's Industrial Technologies Program, ENERGY STAR, and Climate VISION. PCA also worked with EPA through the Climate Wise Program to develop a CO₂ emissions protocol and a means by which to record emissions reductions through the DOE 1605 (b) program (PCA, 2009).

4.2 **Iron and Steel Industry**

The manufacture of iron and steel is an energy intensive process that generates GHG emissions at various stages during the production process (WRI, 2008). The majority of CO₂ emissions from the iron and steel process come from the use of coke in the production of pig iron (U.S. EPA, 2008). Lower levels of CO₂ emissions result from the removal of carbon from pig iron used to produce steel, use of limestone carbonates in sintering and the blast furnace, the consumption of carbon electrodes in electric arc furnaces (EAF), the on-site production of lime, and the use of soda ash (Environment Canada, 2008). In the U.S., the iron and steel industry is represented by the American Iron and Steel Institute (AISI).

AISI supports the reduction of GHG emissions but believes that mandatory programs are not required to accomplish significant reductions in energy and corresponding GHG emissions. AISI advocates the continuation of voluntary programs which they believe have been effective in reducing GHG emissions from the U.S. Iron and Steel industry to date. However, in a "Cap and Trade" system, the steel industry prefers:



- An allowance system that provides generous allotments or exempts the industry altogether due to the industry's GHG reductions to date, its inherent energy-intensive nature, and its strategic position as an industry to support the nation's economic growth and national security; and,
- That the enactment of any CO₂ reduction legislation in the United States must incorporate or provide for the same level of regulatory stringency as other major steel producing nations such as China, on a contemporary time line.

AISI's GHG activities include the commitment to reduce steel industry energy intensity by 10% by the year 2012. Through the Climate VISION initiative, AISI has embarked on a program to establish a sector-wide energy reporting protocol, implementing near-term energy saving opportunities, and research, development, and demonstration of CO₂ breakthrough technologies with significant abatement potential (AISI, 2009).

4.3

Soda Ash Industry

Soda ash (sodium carbonate, Na₂CO₃) is a white crystalline solid that is used as a raw material in a variety of industrial processes and in many products such as glass, soap and detergents, paper, textiles, and food (U.S. EPA, 2008). Soda ash is produced from the mineral Trona, the mineral Nahcolite and sodium carbonate-rich brines (U.S. Geological Survey, 2000). During the production process, the raw ore is crushed and screened. The raw materials are fed to rotary calciners and heated. In this process, the Trona decomposes to form crude soda ash (IMA-NA, 2009). CO₂ and water are generated as byproducts of the calcination process (U.S. EPA, 2008). In the U.S., the soda ash industry is represented by the Industrial Minerals Association.

IMA-NA supports the national resolve to reduce GHG emissions through cooperative efforts to conserve nonrenewable resources, develop cleaner and more efficient energy, increase use of cogeneration and renewable energy, investigate new opportunities to sequester carbon, and improve processes that transform natural resources to manufactured goods. It believes that Congress should avoid enacting legislation that would both:

- Fail to impact global greenhouse gas intensity levels; and,
- Harm our nation's economy.

IMA-NA member companies have set a goal to reduce overall GHG emission intensity from fuel combustion per ton of product by 4.2% between 2000 and 2012. The soda ash member companies are implementing initiatives to achieve this goal. The four major areas of activities are emissions measurement and reporting, opportunities for reduction of GHGs,



cross-sector projects, research and development and technology deployment (IMA-NA, 2009).

4.4 **Lime Industry**

Lime (calcium oxide and calcium hydroxide) is used in a number of important industries, including steel manufacturing, environmental protection, highway construction, and paper manufacturing (NLA, 2004). Lime production involves three main processes: stone preparation, calcination, and hydration. CO₂ is generated during the calcination stage, when limestone is heated at high temperatures in a kiln to produce CaO and CO₂ (U.S. EPA 2008a). Thus, carbon dioxide is released as an unavoidable result of the basic chemical process underlying the manufacture of lime (NLA, 2004). In the U.S., the lime industry is represented by the National Lime Association (NLA).

NLA believes that the promotion of voluntary measures (with tax incentives) and technology development is the most effective method of addressing GHG emissions in the United States. It believes that any market-based mandatory system of emissions allocations will be extremely complicated, and the likelihood of inequities and distortion of markets is high. However, if a mandatory program is pursued, NLA believes that the economy as a whole should absorb the cost and burdens of any such program.

The NLA's GHG emission intensity reduction goal is to reduce GHG from fuel combustion per ton of product by 8% between 2002 and 2012. To assist its members to achieve the association's reduction goals, NLA has:

- Developed a protocol for quantifying greenhouse gas emissions and emission reductions from lime manufacturing plants; and,
- Employed strategies to identify and implement near-term cost-effective measures such as energy efficiency, operational changes, increased reuse of byproducts, and use of alternative fuels and renewable energy (NLA, 2004).



Conclusions

The carbon black industry will be directly affected by any federal or state requirements relating to CO₂ emissions and, therefore, is interested in any proposed GHG emission legislation. The ICBA understands the potential impact GHG emissions present to the climate and the global economy. The ICBA member companies pride themselves on commitments to GHG reductions as responsible corporate stewards. This is evident through innovative technology improvements, participation in the EPA Climate Leaders program, and other specific initiatives committed to improving operating efficiency, which is one of the most significant ways we reduce energy and fuel use.

The following summarizes key points by ICBA on the impacts of GHG legislation on the carbon black industry:

- The carbon black industry is a “Fixed Process Emissions” industry, which means that substantial direct GHG emission reductions can only occur through reduced production. Opportunities for carbon reduction through fuel switching, use of low-carbon feedstocks, abatement technologies and optimization of energy efficiency are extremely limited.
- As an “Exposed Industry,” carbon black manufacturers are also subject to “carbon leakage,” which would result in the relocation of carbon black manufacturing to less stringently regulated countries.
- Even assuming that a fair and even distribution of carbon costs can be achieved, carbon black is a global commodity supplied to a global industry. The costs of purchasing carbon allowances within a mandatory GHG reduction program would be passed on to directly and indirectly related industries and ultimately result in increases in consumer products.



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Annex A:

Summary of Historical and Current Legislative Trends



Annex A

Summary of Historical and Current Legislative Trends

Below is a summary of historical and current legislative trends for U.S. Congress, President Obama's Administration, U.S. States and Regions, and International Treaties.

U.S. Senate

The final action on climate change of the 110th Congress was the failure of cloture on the bill sponsored by Senators Joe Lieberman (I-CT) and John Warner (R-VA), "America's Climate Security Act of 2007" (S.2191), was brought to the floor in June 2008 as a substitute amendment in the Bill S. 3036. The bill faced immediate procedural and political hurdles that halted debate before a substantive dialogue emerged. Nonetheless, the fact that the bill progressed to the floor and the cloture vote (to proceed to the bill) garnered 48 votes (with six others pledged by Senators out of town including both presidential candidates) sent a strong message that carbon regulation was not a matter of "if" but "when."

The Senate has unofficially relinquished their leadership on climate policy after the messy floor action on the Lieberman-Warner bill. The Senate Energy and Natural Resources Committee is in the process of moving energy legislation that would include a Renewable Electricity Standard, expanded federal citing authority for electrical transmission infrastructure, and other items of interest to the clean energy community. While most experts expect the House of Representatives to combine their energy and climate legislation, the Senate is seen as ceding their leadership on climate change to the House. Majority Leader Harry Reid surprised many, however, by publicly musing that he would like to combine a mandatory cap on carbon emissions with other energy policies in a single bill and move it to the Senate floor by August 2009 (this is after firmly stating a few weeks earlier that climate legislation would come after an energy bill). While the Senate Energy Committee moves forward undaunted, the leadership may have other ideas.

U.S. House of Representatives

In an enormous shift in leadership on climate change policy, the long-serving Energy and Commerce Committee Chairman John Dingell (D-MI) was replaced in an upset vote of the democratic caucus just after the national elections in 2008. The more progressive Henry Waxman (D-CA), known to be an activist on environmental issues, has taken the helm of the committee with jurisdiction over climate change.

In October 2008, then-Chairman Dingell and Subcommittee on Energy and Air Quality Chairman Rick Boucher (D-VA) released much-anticipated draft legislation. While legislation by Chairman Waxman will soon guide the debate, the statement by Dingell and Boucher on their releases was poignant: "Politically, scientifically, legally, and morally, the question has been settled: regulation of GHG in the



United States is coming. We believe that elected and accountable representatives in the Congress, not the Executive Branch, should properly design that regulatory program. The only remaining question is what form that regulation will take.”

While the leadership shift certainly leaves questions about the dynamics of the powerful committee, the House is the chamber most closely watched for early, forward action on climate and energy policy. Chairman Waxman says that he aims to prepare comprehensive energy and climate legislation with targeted passage in May 2009. On March 21, 2009, the House Energy and Commerce Committee released the first draft of the American Clean Energy and Security Act of 2009, also known as the Waxman-Markey Bill.

A twist of the House movement on climate policy may come from some jurisdictional jockeying. Representative Charles Rangel (D-NY), Chairman of the Ways and Means Committee, has announced a committee hearing to discuss the scientific objectives of a climate bill. Chairman Rangel has said that his committee will make climate change a priority. While the Energy and Commerce Committee retains primary jurisdiction over environmental regulations and energy legislation, the tax-writing committee holds jurisdiction over carbon tax proposals as well as a few cap-and-trade bills in the previous Congress.

The Obama Administration

The first weeks in the White House for President Obama were largely focused on moving the economic stimulus package. However, the stimulus was a clear example of the President’s belief that America’s economy, energy, and national security are linked and policy to assist the economy must consider the other challenges. In February 2009, President Obama signed the economic stimulus bill known as “The American Recovery and Reinvestment Act of 2009,” Public Law 111-5. The President noted that “because we know we can’t power America’s future on energy that’s controlled by foreign dictators, we’re taking a big step down the road to energy independence and laying the groundwork for a new, green energy economy that can create countless well-paying jobs.”

There have been many indications of a change of environmental attitude from the Administration and they are being coordinated by a new position held by former EPA Administrator Carol Browner. This Energy Czar position, officially Energy Coordinator, is that of an overseer, promoting smooth cooperation among the different energy and climate entities.

The U.S. EPA will arguably have the most groundbreaking role in altering environmental policy in the U.S. In April 2007, the U.S. Supreme Court made a landmark environmental ruling when it said the U.S. EPA not only has the authority to regulate greenhouse gas emissions under the Clean Air Act (CAA), but the U.S. EPA also has a duty to do so if these gases contribute to climate change. As a result of this ruling, subsequent pressure to act, and an earlier leaked copy, the U.S. EPA released an Advanced Notice of Proposed Rulemaking (ANPR) in June 2008 that outlines options, issues for



discussion, and open questions related to regulating carbon dioxide under the CAA. In issuing the ANPR, Administrator Stephen Johnson noted the reluctance that brought the U.S. EPA to the Supreme Court in opposition to this effort, “One point is clear: the potential regulations of greenhouse gases under the Clean Air Act could result in an unprecedented expansion of EPA authority that would have a profound effect on virtually every sector of the economy and touch every household in the land.” In a shift, the new U.S. EPA Administrator Lisa Jackson announced that the agency is giving “vigorous review” to the Johnson ANPR. President Obama has noted that he will not be shy in using the authority granted the U.S. EPA by the Supreme Court. While he looks to Congress to move climate legislation more appropriate to addressing carbon emissions, if Congress fails to act, his Administration will.

On March 10, 2009, the U.S. EPA proposed the first comprehensive national system for reporting emissions of carbon dioxide (CO₂) and other GHG produced by major sources in the United States. This reporting rule was required by the consolidated Appropriations Act of 2008. There is a 60-day comment period on this notice after publication in the Federal Register. The first annual report for stationary source emissions would be submitted to EPA by March 31, 2011 for calendar year 2010 data.

The new reporting requirements will apply to suppliers of fossil fuel and industrial chemicals, manufacturers of motor vehicles and engines, as well as large direct emitters of GHG with emissions greater than or equal to 25,000 metric tons CO₂ equivalent emissions per year. The direct emission sources covered under the reporting requirement will include energy intensive sectors such as cement production, iron and steel production, oil and gas, and electricity generation, among others. Reporting will be at the facility level under the traditional Clean Air Act definition of “facility.” According to the U.S. EPA, this proposal is estimated to cover 13,000 facilities, accounting for about 85% to 90% of GHG emitted in the U.S. Under the new proposed GHG reporting rule, the USEPA classifies carbon black production under “Petrochemical Production” and includes it in the same category as petrochemical products such as methanol, acrylonitrile, ethylene, ethylene oxide, and ethylene dichloride. However, under the EU ETS Annex I activities, carbon black production is classified under “Chemical Industry,” which is a category of basic inorganic chemicals (EC, 2008). There is debate as to whether carbon black production should be categorized in the combustion category for plants that generate power from tail gas energy recovery. Through this white paper, ICBA believes that carbon black production should be included in this combustion category.

It is clear that U.S. EPA intends to use the data generated by the Greenhouse Gas Reporting Rule to chart the path for GHG reductions in the near future. In releasing the March 10 reporting rule, U.S. EPA Administrator Lisa P. Jackson said “Through this new reporting, we will have comprehensive and accurate data about the production of GHG. This is a critical step toward helping us better protect our health and environment – all without placing an onerous burden on our nation’s small businesses.”



On April 17, 2009, the U.S. EPA released the “Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act” better known as the “Endangerment Finding.” In the finding, EPA establishes a causal link between anthropogenic GHG emissions and its effects on public health and welfare within the meaning of Section 202(a) of the Clean Air Act. EPA’s proposed endangerment finding is based on peer-reviewed scientific analysis of six GHG; carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. The scientific studies used in the finding show that high atmospheric concentrations of these GHG are very likely the cause of the increase in average global temperatures and other climate change effects. At the time of writing this report, the proposed endangerment finding is in public comment phase, before the EPA can issue final findings.

Action in the States

The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory, market-based effort in the United States to reduce GHG emissions. Ten Northeastern and Mid-Atlantic states will cap and then reduce CO₂ emissions from the power sector 10% by 2018. The first auction of carbon credits in the U.S. took place on September 25, 2008, with the second auction on December 17, 2008, and the third auction on March 18, 2009. The auctions were generally seen as successful with the market clearing price \$3.07 per allowance in the first auction (with six of the ten RGGI states submitting allowances) and \$3.38 and \$3.51 for the last two auctions, respectively (with all RGGI states participating). States intend to invest the funds raised by the auctions in energy efficiency, renewable energy technology, programs to benefit consumers, and other areas as established by the individual state.

California Assembly Bill 32 (AB32) requires California to reduce their GHG emissions to 1990 levels by 2020. In order to achieve these goals, the California Air Resources Board (CARB) released their “Climate Change Draft Scoping Plan” as a discussion draft in June 2008. The Plan proposes expanding existing energy efficiency programs, strengthening appliance and building standards, increasing the Renewable Portfolio Standard to 33%, implementing existing state laws, and establishing a cap-and-trade program and a carbon fee.

In February 2007, the Western Climate Initiative (WCI) was launched by seven U.S. governors and four Canadian Premiers to identify, evaluate, and implement ways to collectively reduce GHG emissions from the region. The focus of the initiative is the development of a market-based cap-and-trade system which is currently in the design phase with stakeholder input in progress. The effort aims to reduce GHG emissions by 15% below 2005 levels by 2020. The current reporting threshold recommendation remains 10,000 metric tons of CO_{2-e} emissions with mandatory measurement and monitoring beginning January 1, 2010, with reporting due in 2011.

The CARB is working with the states and provinces in the WCI on the cap-and-trade program that will deliver equitable and equivalent GHG reductions throughout the West. The cap-and-trade program developed for AB 32 is intended to link with the WCI program. The CARB plans to develop



regulations to implement the statewide cap-and-trade program by the end of 2010 and commence the program in 2012; this schedule will coordinate with the regional WCI cap-and-trade program implementation.

International Climate Policy

The international efforts by the global community, through ratification and implementation of the Kyoto Protocol (the climate treaty) are reaching a turning point. While the U.S. signed the treaty in 1997, it has never been submitted to the Senate for ratification. Until there is a cap-and-trade or similar program in the U.S. to regulate carbon emissions, the U.S. could not be sure that it could meet the goals outlined by the treaty. In addition, the U.S. government has held the position that without binding targets by the developing countries (particularly India and China) the government would not ratify and adhere to the treaty that was seen as sending manufacturing jobs overseas. The first “commitment period” of the Kyoto Protocol (2008 – 2012) has started and new targets aim to be established in Copenhagen at the climate summit in December 2009. If the U.S. and many of the developing world non-Annex I countries commit themselves to some targets, it would not only ensure more global emissions are governed by the treaty but would provide comfort to other industrialized partners who have ratified and begun implementation despite the absence of large emitters. The new state department will lead the delegation to Copenhagen. The negotiations fall to those who will report to Secretary of State Hilary Clinton. While President Obama has pledged to re-engage in the international negotiations, he has also indicated that he is loath to enjoin the U.S. in any agreement that it cannot meet.

The European Union Emission Trading Scheme (EU ETS) is being closely monitored by governments around the world and is considered as the leading example of an attempt to use the market to tackle environmental issues. As a direct response to the Kyoto protocol, the EU has devised an EU ETS based on the Cap & Trade principle and split into three distinctive periods. The First Phase (2005-2007) was used as a “learning by doing” phase to prepare for the crucial second trading period. The feasibility of the CO₂ “cap & trade” principle was however demonstrated during that time. The Second Phase (2008-2012) coincides with the first Kyoto Commitment period. The EU companies falling within the scope of the EU ETS must monitor and comply with the allocated emission quotas granted by their respective country as per their National Allocation Plan (NAP) approved by the European Commission (EC). The companies must annually surrender sufficient European Union Allowances (EUA) and interchangeable carbon credits (CER, ERU) equating to the amount of CO₂ they have actually emitted in that year. Any shortfall can be covered by the purchases of credits on the open market. Companies failing to submit sufficient CO₂ credits by the due dates will be fined €100 per tonne missing on top of the obligation of acquiring the missing credits on the market. This second phase of the EU ETS is still a transition period towards a more durable approach. Harmonization, clarification and refinement of the system are expected to define a more effective and efficient system for the third phase. The Third Phase (2013 – 2020) has not been fully defined as yet but following a proposal by the EC, the 27-EU member-states



agreed on December 2008 to achieve by 2020 the following legally binding targets, taking 2005 as the base year:

- 20% GHG emission reduction
- 20% share for renewable energy
- 20% improvement in energy efficiency

These “20-20-20 by 2020” objectives are meant to shift the EU to a low-carbon economy with increased energy security. For this third phase, the carbon black industry has already been recognized as an exposed one. As such, companies having production facilities in Europe have been asked to provide benchmark values on their products to help the European Commission decide on how best to allocate allowances for this industry is at risk of carbon leakage. A resolution on this is expected by the end of 2009.

Attachment 5

ATTACHMENT TO THE REPORT OF THE HEARING OFFICER

K.A.R. 28-19-200a, 28-19-350

Final New and Amended Regulations

Legal Authorities

Kansas Statutes Annotated (K.S.A.) 65-3005, as amended, authorizes and directs the secretary to adopt such rules and regulations as necessary to enable the secretary to carry out the purpose and provisions of the Kansas Air Quality Act, K.S.A. 65-3001 *et seq.* and amendments thereto.

Responsiveness Summary

On October 26, 2010, a public hearing was held at 10:00 a.m. in Room 530 of the Curtis State Office Building in Topeka, Kansas. The purpose of the hearing was to consider the adoption of new permanent air quality regulation K.A.R. 28-19-200a, and amendments to permanent air quality regulation K.A.R. 28-19-350.

The public comment period began with the publication of the Notice of Hearing on Proposed Administrative Regulations in the *Kansas Register* on August 26, 2010, and ended on October 26, 2010. The organizations and people that submitted comments during the public comment period are summarized in the table below.

Organization	Name	Type of Comment
Joint Committee on Administrative Rules and Regulations	Raney L. Gilliland	Written
Kansas Association of Counties	Norm Bowers	Written
Empire District Electric Company	George G. Thullesen	Written & Verbal
Columbian Chemicals Company	Larry Scheinpflug	Written

- The Joint Committee on Administrative Rules and Regulations (JCARR) considered the proposed regulations at its meeting on September 20, 2010. KDHE received a comment letter from JCARR on September 28, 2010, which can be found in Attachment 4 to the Report of the Hearing Officer. JCARR's comments and KDHE's responses follow.

Comment: "The Committee suggests adding a date certain for each document adopted by reference, throughout the set of submitted regulations."

Response: KDHE worked closely with the Department of Administration to ensure a proper format was used for the adoptions by reference. The Department of Administration required KDHE to use a specific reference style in order to maintain consistency with previously adopted Kansas Administrative Regulations. Additionally, the Attorney General's office found no issues of concern with the legality of the proposed regulations.

The adoptions by reference to the *Federal Register* are specific to a date certain, as each reference cites the volume number of the *Federal Register* publication and the specific page number(s) of that volume. Additionally, the year of the *Federal Register* publication is cited in parenthesis after each adoption-by-reference.

Action: No change was made to the proposed regulations as a result of this comment.

Comment: “KAR 28-19-200a. In subsection (a), the definition of “major source” in this regulation supersedes the definition of “major source” in KAR 28-19-200 for the purpose of the listed regulations. Please clarify which definition of “major source” applies in the listed regulations since there has been no amendment to any of the listed regulations. Also consider additional changes or amendments, if any should be needed, if the definition of “major source” contained in KAR 28-19-200a applies in the listed regulations for some purposes, while the definition of “major source” contained in KAR 28-19-200 needs to apply at the same time for other purposes.”

Response: The definition of “major source” in the federal Greenhouse Gas (GHG) Tailoring Rule at 75 FR 31607 applies *only* to the K.A.R.’s listed at K.A.R. 28-19-200a(a)(1) through 28-19-200a(a)(4). In fact, the definition of “major source” that is adopted by reference in K.A.R. 28-19-200a must be the only one to apply to the listed regulations in order for Kansas to accurately implement the federal GHG Tailoring Rule. This new definition simply broadens the definition of “major source” for purposes of implementing the GHG Tailoring Rule.

“Major source,” as currently defined at K.A.R. 28-19-200(kk), must be left intact, as that definition is needed so that Kansas’ definition of “major source” as applied to criteria pollutants and hazardous air pollutants is consistent with the federal definition for criteria and hazardous air pollutants. The new definition of “major source” in K.A.R. 28-19-200a(a) is needed *only* to implement the federal GHG Tailoring Rule.

Action: No change was made to the proposed regulations as a result of this comment.

Comment: “KAR 28-19-350. On page 3, the agency adopts by reference portions of 40 CFR Part 51 as amended by 75 *Federal Register* 31606-31607. Please indicate whether these are the only federal regulations being adopted by reference from 75 *Federal Register* 31606-31607. Specifically, please comment on the potential inclusion of 40 CFR 52.22, 40 CFR 70.12 and 40 CFR 71.13.”

Response: For K.A.R. 28-19-350, the adoptions by reference from 75 FR 31606-31607 are limited to those at 40 C.F.R. 51.166 and 52.21, specifically;

40 C.F.R. 51.166(b)(48) – New definition, “subject to regulation”

40 C.F.R. 51.166(b)(49)(iv) through (b)(49)(v) – Amended definition, “regulated NSR pollutant”

40 C.F.R. 52.21(b)(49) – New definition, “subject to regulation”

40 C.F.R. 52.21(b)(50) – Amended definition, “regulated NSR pollutant”

KDHE has not adopted by reference the new sections of 40 C.F.R. 52.22, 70.12 and 71.13, nor does KDHE currently have plans to do so, as these sections commit EPA to exploring the possibility of lowering the permitting thresholds for GHG emissions in the future.

Action: No change was made to the proposed regulations as a result of this comment.

- An e-mail was received on September 7, 2010, from Norm Bowers, a Local Road Engineer with the Kansas Association of Counties. The e-mail inquired about the Title V permit expiration and renewal procedures. A copy of the e-mail can be found in Attachment 4 to the Report of the Hearing Officer.

Comment: “Due to turnover and minimal staffing at the county level, a five year permit renewal can be easily overlooked. So our major concern on Title V permits is proper notification that the permit is expiring and the potential penalties if the permit would inadvertently expire. Please furnish me the K.A.R. that relates to KDHE requirement to notify the permit holder that the permit is scheduled to expire, and the fines or penalties should the permit expire.”

Response: Although there is no regulatory or statutory requirement for KDHE to notify a source that its Title V permit is approaching expiration, KDHE proactively sends a reminder in the mail twelve months prior to the permit’s expiration date. K.A.R. 28-19-514 specifies that a Title V renewal application must be received at KDHE between 6 and 18 months prior to the expiration date.

If the Title V permit were to expire, the penalties that could apply are specified in a KDHE policy document that can be found at http://www.kdheks.gov/air-permit/forms/Air_Enforcement_Policy.pdf.

Action: No change was made to the proposed regulations as a result of this comment.

- A letter was received via e-mail on October 18, 2010, from George G. Thullesen, the Director of Environmental Policy for the Empire District Electric Company. The letter expressed dissatisfaction with EPA’s GHG Tailoring Rule, but support for KDHE adopting the rule by reference and thus becoming the regulatory authority for GHG emissions in Kansas. Substantially similar verbal testimony was also presented by Mr. Thullesen during the public hearing. Copies of the written and verbal comments can be found in Attachment 4 to the Report of the Hearing Officer.

Comments: “Empire District does not support the EPA’s regulation of GHGs. [Empire District] submitted comments to EPA relating that:

1. The GHG Tailoring Rule was not an efficient use of taxpayer money
2. The EPA was not granted the authority to deliberately limit GHG emissions from larger sources through their absurd results approach which will result in needless litigation, and
3. The Clean Air Act was written at an earlier time for the protection of the public and not as a tool to try to compete on an international scale.

Empire District believes that the regulation of GHGs should be governed by new legislation created by the United States Congress.

Empire District supports KDHE's proposed new air quality regulation K.A.R 28-19-200a and the proposed amendment to K.A.R. 28-19-350. Empire District realizes that the KDHE is now faced with a decision to either revise their current air quality regulations in order to regulate GHGs under the existing Title V and PSD programs or relinquish GHG regulating authority to the EPA. Relinquishing this authority would result in a dual Title V and PSD permitting process where EPA regulated GHGs and the KDHE regulated all remaining pollutants. Until such a process could be implemented a Title V permitting moratorium might exist in Kansas. If GHGs are regulated under the CAA Empire District firmly asserts that we prefer the KDHE as the GHG regulatory authority in Kansas. Furthermore, a Title V permitting moratorium would be detrimental to economic growth within the state. Therefore, Empire District supports the adoption of the proposed K.A.R 28-19 Title V GHG Tailoring Rule revisions including amendments to K.A.R. 28-19-350 as proposed by the KDHE."

Response: KDHE appreciates the support expressed by Empire District.

Action: No change was made to the proposed regulations as a result of this comment.

- An e-mail was received on October 26, 2010, from Larry Scheinpflug, the Environmental Manager for Columbian Chemicals Company. The e-mail outlined numerous concerns with the proposed regulations' effect on the carbon black manufacturing industry. Excerpts from the e-mail are included below. A copy of the complete e-mail, including a white paper that was attached, can be found in Attachment 4 to the Report of the Hearing Officer.

Comments: "CO₂ is the significant GHG concern for carbon black manufacturing. Most of the CO₂ emissions released to the atmosphere originate from combustion of tail gas for pollution control rather than from the leakage or release of uncombusted tail gas. Because the industry competes in a global market, energy conservation measures such as waste heat recovery are already implemented in U.S. carbon black operations to minimize operating costs. As such, the opportunities for further reduction in GHG emissions can only be made through reducing production. Reduced production translates to losses of jobs and investments in the U.S. Onerous GHG regulations in the U.S. would result in significant increase to the price of tires and other rubber products for consumers, and the industries tied to carbon black will suffer the same issues of cost competitiveness and loss of U.S. jobs. To avoid moving the carbon black industry overseas, fair treatment of the industry under a U.S. or Kansas GHG regulatory strategy will be essential."

"Again, the only way for carbon black producers to reduce CO₂ emissions is to reduce the production of carbon black product. I suggest that KDHE either provide free CO₂ allowances to the carbon black industry or exempt the industry from controlling CO₂ emissions to prevent carbon leakage. Either one of these actions would attract industries to the state and maintain the industries already doing business in Kansas."

Response: Since the GHG Tailoring Rule is a federal regulation, KDHE's adoption of this rule ensures that the State of Kansas, not EPA, will become the permitting authority for the PSD and Title V GHG programs for Kansas sources.

In response to the suggestion that KDHE provide regulatory relief for the carbon black industry, KDHE is simply adopting by reference the federal GHG Tailoring Rule, which does not include any such relief provisions for specific industry groups. Additionally, K.S.A. 2009 Supp. 65-3005(b)(1) precludes KDHE from establishing standards that are "any more stringent, restrictive or expansive than those required under the federal clean air act." Since a carbon credit or trading program for Kansas sources would be more expansive than the federal GHG Tailoring Rule, KDHE is unable to provide free allowances. It is important to note that even if KDHE took action to exempt the carbon black industry from GHG regulation under Kansas' PSD and Title V programs, carbon black sources in Kansas would still be subject to the federal GHG Tailoring Rule.

KDHE understands that certain trade-exposed industries could be adversely impacted by the federal GHG Tailoring Rule, and certainly is concerned with any negative economic effects from the rule. However, Kansas sources have typically preferred that KDHE, instead of EPA, administer the air quality permit programs. It is KDHE's goal to provide regulatory certainty and flexibility to industry in Kansas by having primacy over both the Title V and PSD programs. In order to maintain this primacy, KDHE is adopting by reference the federal GHG Tailoring Rule into Kansas regulations.

Action: No change was made to the proposed regulations as a result of this comment.